

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

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 @ 10 msec	20 x I _N @ 25 °C
Temperature range (operation and storage)	-25°C to +110°C (25/110/21)
Flammability corresponding to MTBF @ 40°C/230 V (Mil-HB-217F)	UL 94 V-0 (insulation tubes UL 94 V-2) >5,000,000 hours

Typical applications

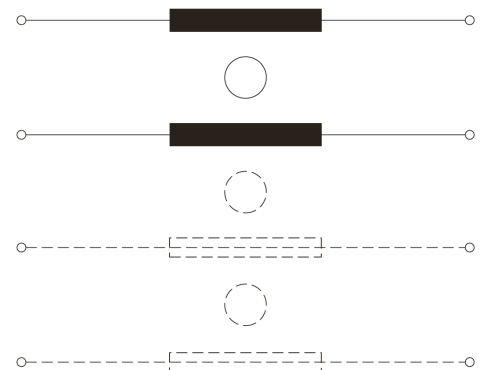
- | Phase-angle control circuits in combination with saturating chokes

- | EMI input filters

- | For suppressing equipment with no earth connection

- | Suppressing high interference levels

Typical electrical schematic



Choke selection table

Choke	Nominal current @ 40°C [A]	Inductance L [mH/path]	Resistance R [mΩ/path]	Choke configuration [Qty]	Input/Output connections		Pin footprint connections [mm]	Weight [g]
RD 5122-6-9m6	6	9.6	52.55	2	-02		Ø1	160
RD 5122-10-6m0	10	6	24.25	2	-02		Ø1.3	160
RD 5122-16-2m0	16	2	9.5	2	-02		Ø1.6	160
RD 5132-6-5m0	6	5	38	3	-02		Ø1	160
RD 5132-10-3m0	10	3	17.6	3	-02		Ø1.3	160
RD 5132-16-1m0	16	1	6.9	3	-02		Ø1.6	160
RD 6127-6-15m0	6	15	66.65	2	-07		Ø1	235
RD 6127-10-9m0	10	9	25.9	2	-07		Ø1.5	235
RD 6127-16-3m0	16	3	10.9	2	-07		Ø1.8	235
RD 6137-6-7m5	6	7.5	49	3	-07		Ø1	235
RD 6137-10-4m5	10	4.5	18.35	3	-07		Ø1.5	235
RD 6137-16-1m5	16	1.5	8.3	3	-07		Ø1.8	235
RD 7127-6-25m0	6	25	84.2	2	-07		Ø1	320
RD 7127-10-14m0	10	14	33.5	2	-07		Ø1.4	350
RD 7127-16-5m7	16	5.7	14.1	2	-07		Ø1.8	370
RD 7127-25-2m8	25	2.8	6.4	2	-07		Ø2.4	400
RD 7127-36-1m0	36	1	3.3	2	-07		Ø2.7	380
RD 7137-6-12m0	6	12	60.6	3	-07		Ø1	340
RD 7137-10-6m6	10	6.6	21.9	3	-07		Ø1.5	380
RD 7137-16-2m8	16	2.8	10.7	3	-07		Ø1.8	380
RD 7137-25-1m3	25	1.3	4.45	3	-07		Ø2.5	440
RD 7137-36-0m5	36	0.5	2.75	3	-07		Ø2.7	400
RD 7147-6-6m0	6	6	45.1	4	-07		Ø1	320
RD 7147-10-3m5	10	3.5	19.1	4	-07		Ø1.4	370
RD 7147-16-1m5	16	1.5	8.5	4	-07		Ø1.8	390
RD 7147-25-0m7	25	0.7	3.65	4	-07		Ø2.4	430
RD 7147-36-0m2	36	0.2	2.3	4	-07		Ø2.5	400
RD 8127-16-12m0	16	12	20.05	2	-07		Ø2	590
RD 8127-25-5m0	25	5	8.45	2	-07		Ø2.4	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		Ø2	630
RD 8137-25-2m5	25	2.5	6.4	3	-07		Ø2.4	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		Ø2	650
RD 8147-25-1m3	25	1.3	5.05	4	-07		Ø2.4	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%

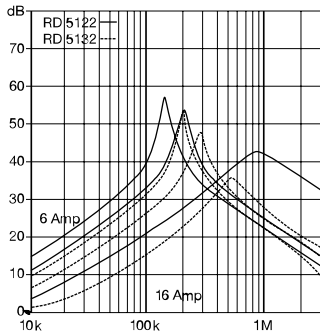
Resistance tolerance: ±15% @ 25 °C

Electrical characteristics @ 25°C: ±2°C

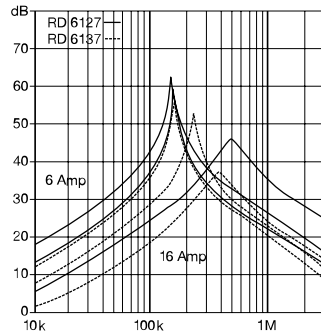
Typical choke attenuation/resonance frequency characteristics

Per CISPR 17; 50 Ω/50 Ω asym

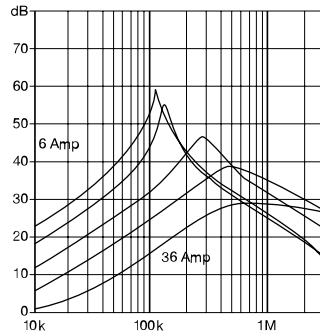
RD 51x2



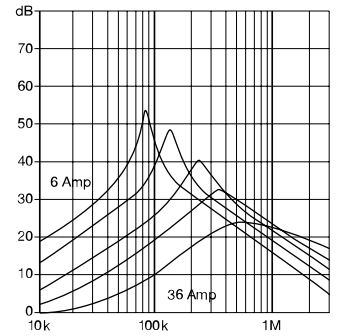
RD 61x7



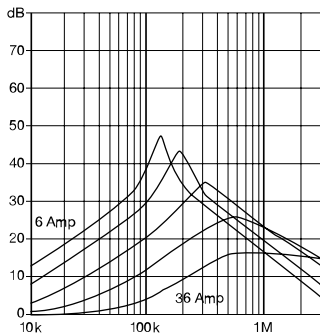
RD 7127



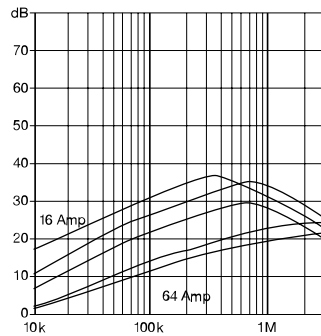
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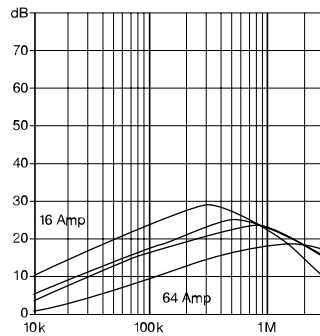
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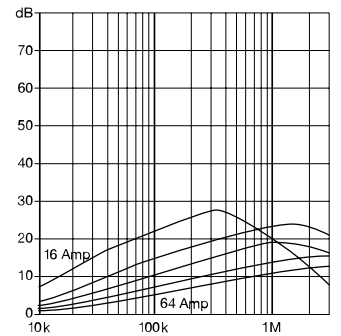
RD 8127



RD 8137



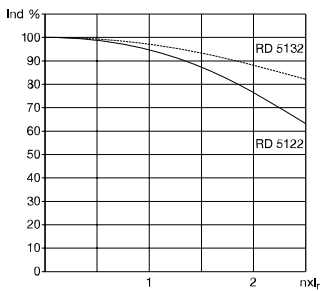
RD 8147



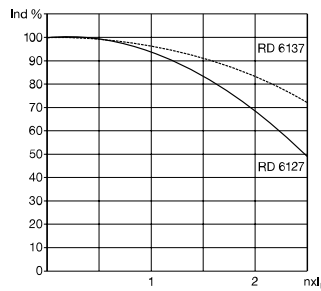
Typical saturation characteristics

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

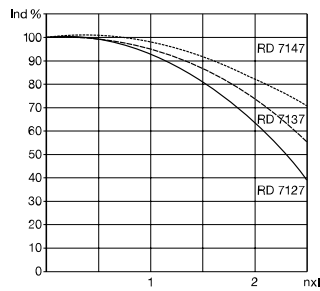
RD 51x2



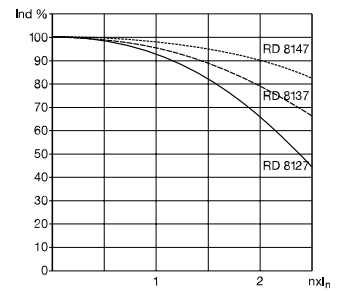
RD 61x7



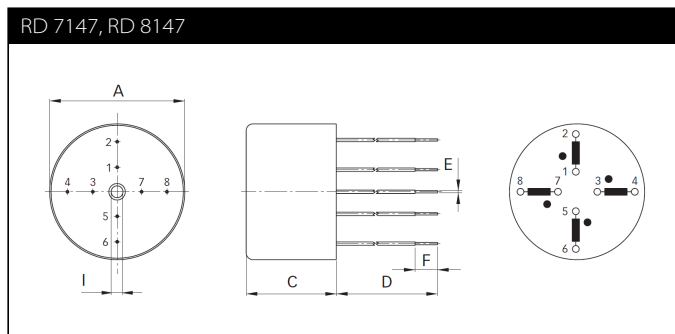
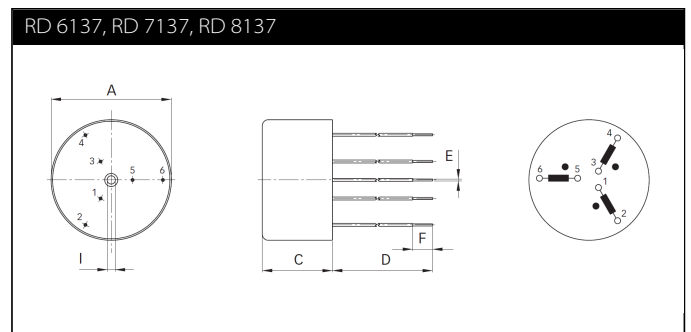
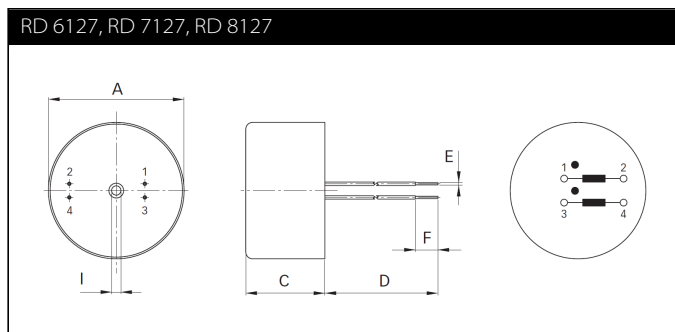
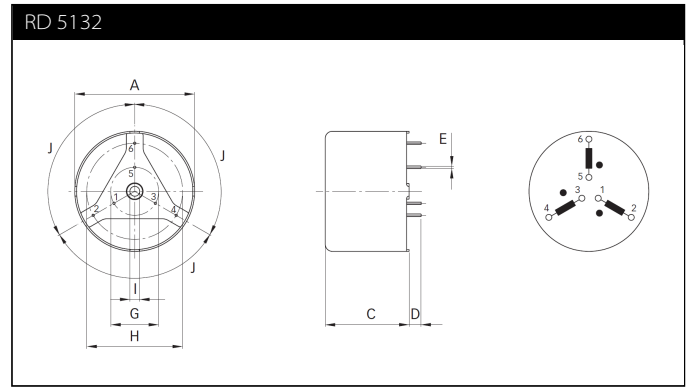
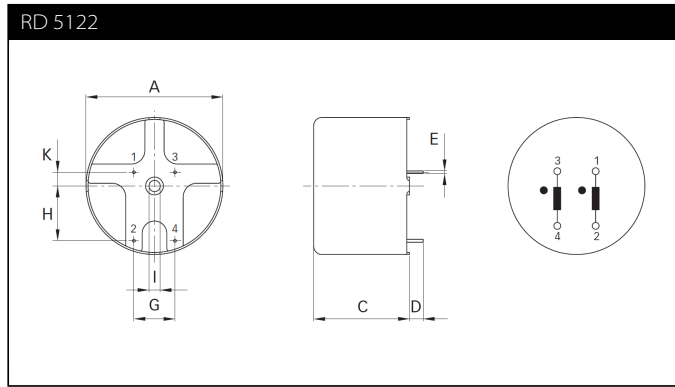
RD 71x7



RD 81x7



Mechanical data



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 to: ISO 2768-m/EN 22768-m

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



Headquarters, global innovation and development

Switzerland

Schaffner Group

Nordstrasse 11
4542 Luterbach
T +41 32 681 66 26
info@schaffner.com
www.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
www.schaffner.com.cn

Finland

Schaffner Oy

Sauvonrinne 19 H
08500 Lohja
T +358 50 468 7284
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

Germany

Schaffner Deutschland GmbH

Schoemperlenstrasse 12B
76185 Karlsruhe
T +49 721 56910
F +49 721 569110
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
Malleswaram (W)
560055 Bangalore
T +91 80 67935355
indiasales@schaffner.com

Italy

Schaffner EMC S.r.l.

Via Ticino, 30
20900 Monza (MB)
T +39 039 21 41 070
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
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

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

Sweden

Schaffner EMC AB

Tegeluddsvägen 76, 2tr
115 28 Stockholm
T +46 8 5050 2425
swedensales@schaffner.com
www.schaffner.com

Switzerland

Schaffner EMV AG

Nordstrasse 11
4542 Luterbach
T +41 32 681 66 26
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
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

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

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
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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