

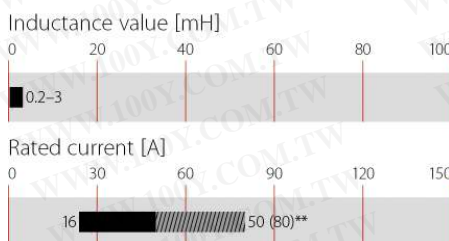
Current-compensated Chokes



- | Rated currents from 16 to 50 A
- | Up to 600 VAC or 1000 VDC
- | 2- and 3-wire configurations
- | Horizontal and vertical PCB mounting types
- | Ruggedized saturation and thermal behavior
- | Open construction for forced and convection cooling
- | Straightforward pin-out for easy PCB design



Performance indicators



勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Technical specifications

Maximum continuous operating voltage	600 VAC / 1000 VDC
Operating frequency	dc to 400 Hz
Rated currents	16 to 50 A @ 60°C max. convection cooling
High potential test voltage winding-to-winding	2500 VAC, 60 sec, guaranteed, 2 sec factory test
Temperature range (operation and storage)	-40 °C to +125 °C (40/125/21)
Flammability corresponding to	UL 94 V-0
Cooling	convection / forced cooling
MTBF @ 40°C/230V (Mil-HB-217F)	> 5,000,000 hours

Approvals

ROHS

RB common-mode chokes are mainly used to filter EMI noise on AC power lines up to 600 VAC but they are as well applicable in DC power lines of photovoltaic installations or similar applications up to 1000 VDC. EMI noise of electronic equipment can go to the power lines and disturb the proper function of other devices like TV sets or radios. Thus noise generated by the equipment from switched power electronics or by high slew rates of controllers needs to be filtered. RB common-mode chokes are used to suppress EMI noise in PCB integrated filter designs with line bypass capacitors or in combination with single phase filters for extra low leakage filter designs.

Features and benefits

- | Cost-effective PCB designs for up to 80 A with forced cooling *
- | 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

* See Application Note for forced cooling

Typical applications

- | AC and DC filtering for midsize power range drives, photovoltaic inverters, fast chargers, charging stations, UPS and switch mode power supplies
- | Filter with low leakage current noise or improved immunity against grid disturbances
- | Electronic devices, automation
- | Converters

RB Series

Selection table	convection cooling nominal current @ 60 °C		*forced cooling 3 m/s nominal current @ 60 °C		Inductance Ln @ 25 °C	Inductance Ls @ 25 °C	Resistance R @ 25 °C	Choke	Ø Pin	Length Pin	Weight
	[A]	[A]	[A]	[A]	[mH/path]	[µH/path]	[mΩ/path]	[size]	D [mm]	L [mm]	[g]
RB6122-16-1M0	16	25	16	25	1.00	6.3	4.8	1	2.0 ± 0.1	4.5 ± 0.5	130
RB6122-25-0M6	25	39	25	39	0.64	4.0	2.7	1	2.4 ± 0.1	4.5 ± 0.5	135
RB6122-36-0M5	36	53	36	53	0.45	3.6	1.5	2	2.2 ± 0.1	4.5 ± 0.5	180
RB6122-50-0M3	50	80	50	80	0.25	1.8	0.9	2	2.5 ± 0.1	5.0 ± 0.5	172
RB6522-16-1M0	16	25	16	25	1.00	6.2	4.6	3	2.0 ± 0.1	4.5 ± 0.5	132
RB6522-25-0M6	25	39	25	39	0.64	3.9	2.6	3	2.4 ± 0.1	4.5 ± 0.5	126
RB6522-36-0M5	36	53	36	53	0.45	3.6	1.5	4	2.2 ± 0.1	4.5 ± 0.5	180
RB6522-50-0M3	50	80	50	80	0.25	2.0	0.9	4	2.5 ± 0.1	5.0 ± 0.5	175
RB8522-16-3M0	16	25	16	25	3.00	22.2	8.4	4	2.0 ± 0.1	4.5 ± 0.5	172
RB8522-25-2M0	25	39	25	39	2.00	13.6	4.2	5	2.6 ± 0.1	5.0 ± 0.5	268
RB8522-36-1M5	36	53	36	53	1.50	12.8	3.0	6	2.2 ± 0.1	4.5 ± 0.5	440
RB8522-50-0M8	50	83	50	83	0.75	6.5	1.7	6	2.5 ± 0.1	5.0 ± 0.5	430
RB6132-16-0M8	16	26.5	16	26.5	0.80	5.8	4.6	7	2.0 ± 0.1	4.5 ± 0.5	162
RB6132-25-0M5	25	41	25	41	0.47	3.3	2.4	7	2.5 ± 0.1	5.0 ± 0.5	175
RB6132-36-0M4	36	60	36	60	0.42	2.9	1.4	8	2.2 ± 0.1	4.5 ± 0.5	278
RB6132-50-0M2	50	80	50	80	0.18	1.9	0.9	8	2.5 ± 0.1	5.0 ± 0.5	765
RB6532-16-0M8	16	26.5	16	26.5	0.80	6.9	4.7	9	2.0 ± 0.1	4.5 ± 0.5	165
RB6532-25-0M5	25	41	25	41	0.47	3.6	2.4	9	2.5 ± 0.1	5.0 ± 0.5	180
RB6532-36-0M4	36	60	36	60	0.42	4.2	1.5	10	2.2 ± 0.1	4.5 ± 0.5	280
RB6532-50-0M2	50	81	50	81	0.18	1.5	0.8	10	2.5 ± 0.1	5.0 ± 0.5	168
RB8532-16-1M3	16	27	16	27	1.30	9.1	5.7	9	2.0 ± 0.1	4.5 ± 0.5	167
RB8532-25-0M9	25	41	25	41	0.94	6.7	3.0	11	2.0 ± 0.1	5.0 ± 0.5	282
RB8532-36-0M8	36	58	36	58	0.83	7.3	2.3	12	2.4 ± 0.1	4.5 ± 0.5	478
RB8532-50-0M3	50	82	50	82	0.33	3.1	1.2	12	2.2 ± 0.1	5.0 ± 0.5	442

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; < 20 mΩ 1 A

Electrical characteristics @ 25 °C: ±2 °C

* typical current for forced cooling with 3 m/s. Due to the possible turbulences and degradation of the air stream within an equipment please consider thermal validation.

Product selector

RB xxxx-xx-xmx

Inductance value (e.g. 9M6 = 9.6 mH)

Nominal input current [A] (convection cooling)

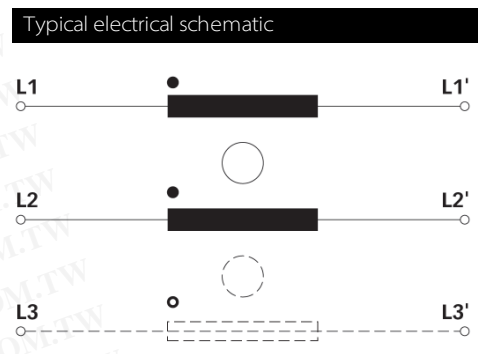
Terminal type (2 for PCB pin)

2 = 2-wire choke
3 = 3-wire choke

1 = Horizontal
5 = Vertical

8 = high inductance series
6 = low inductance series

Schaffner standard ring-core choke series RB



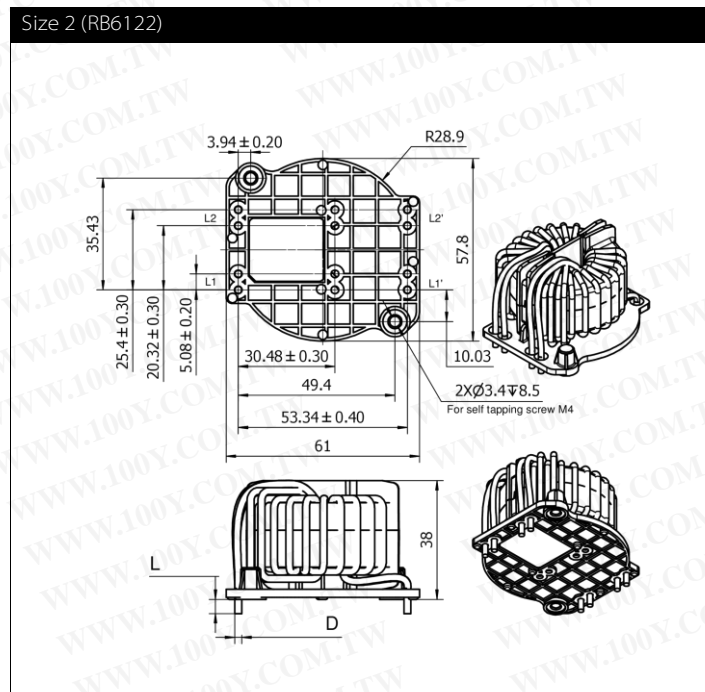
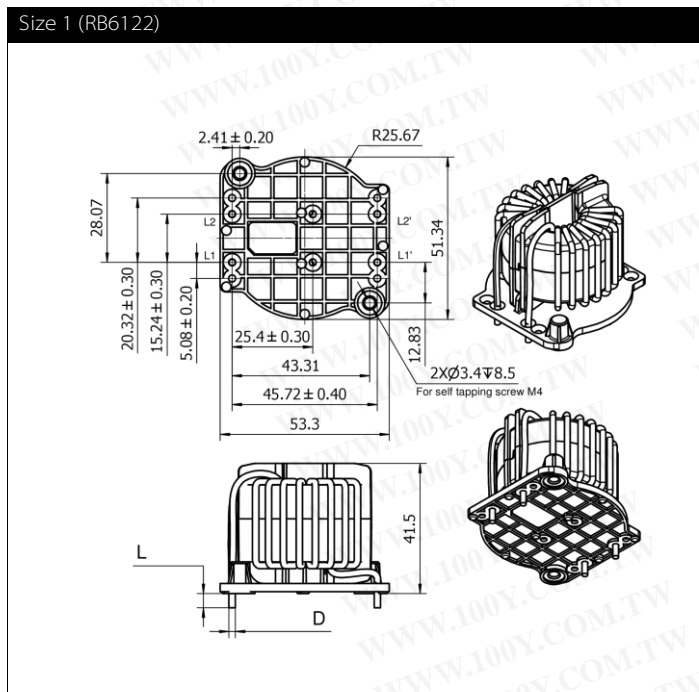
Examples:

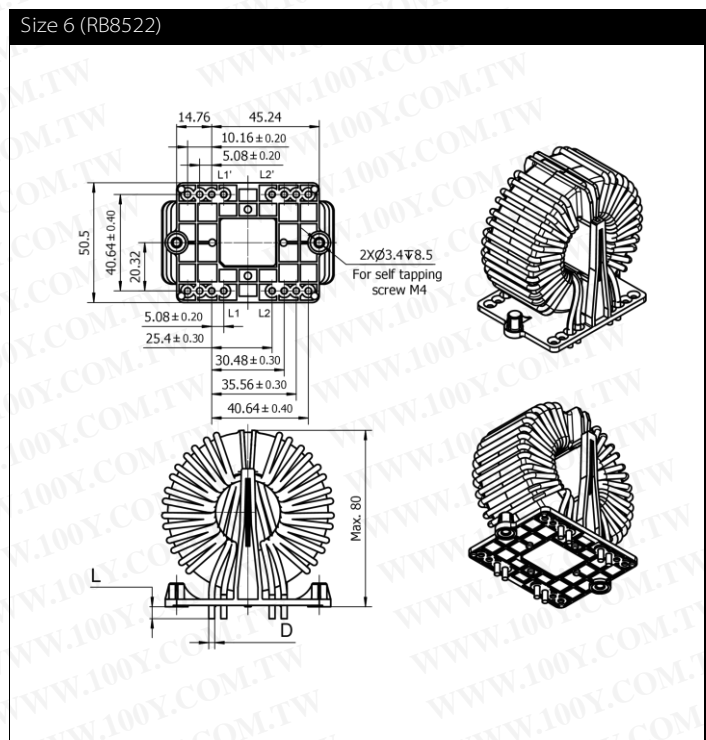
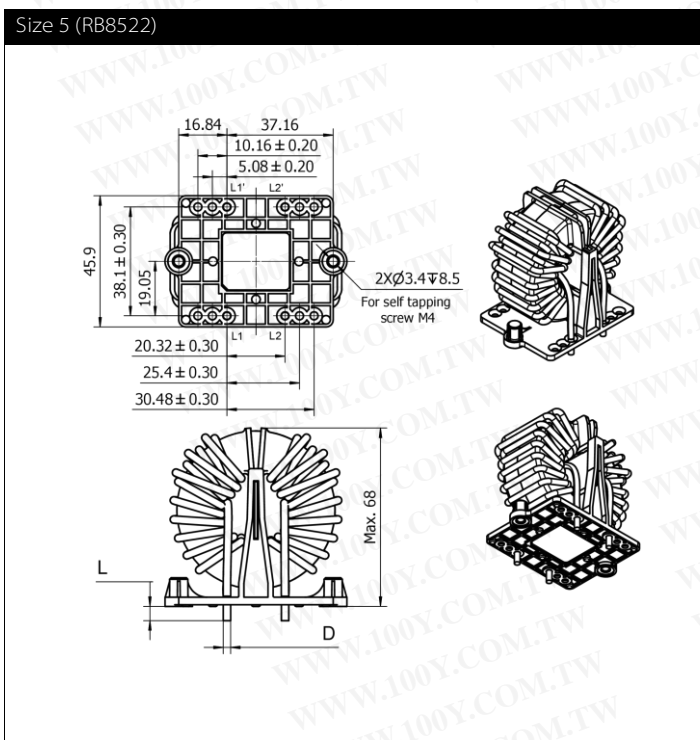
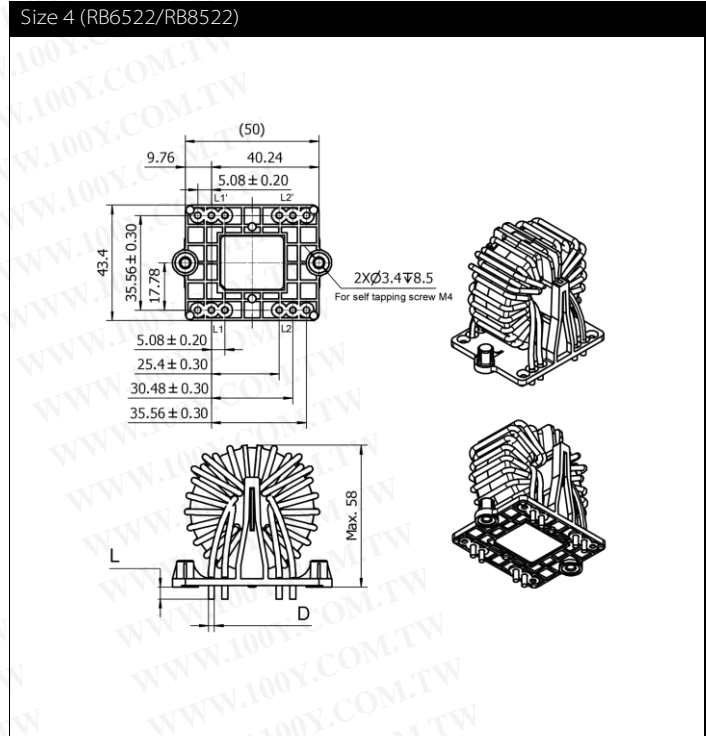
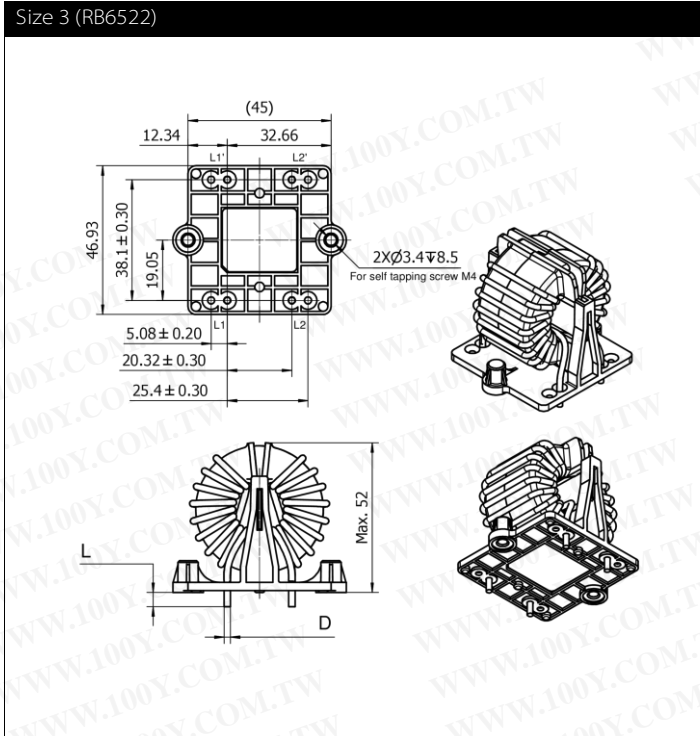
RB8532-16-1M3: Vertical 3-wire high inductance choke with PCB pins, for 16 A, with 1.3 mH

RB6122-50-0M3: Horizontal 2-wire low inductance choke with PCB pins, for 50 A, with 0.3 mH

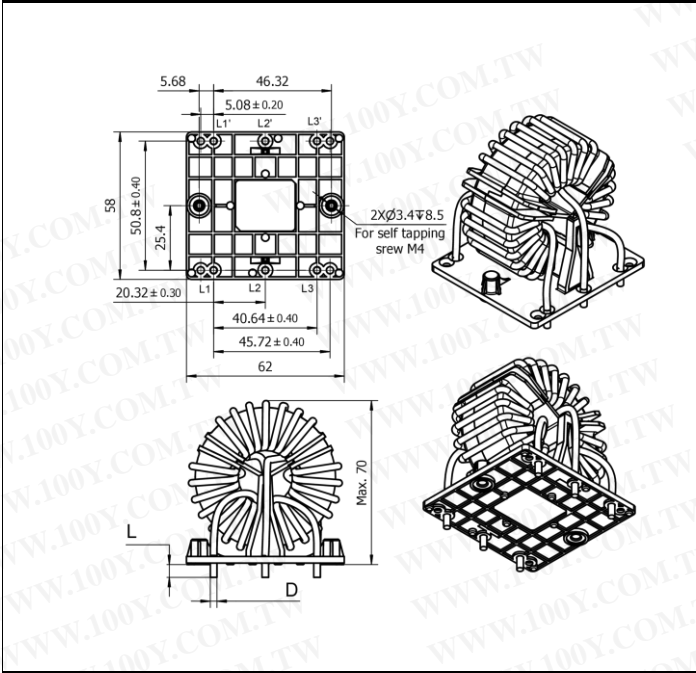
1-phase / DC chokes

Dimensions (mm)

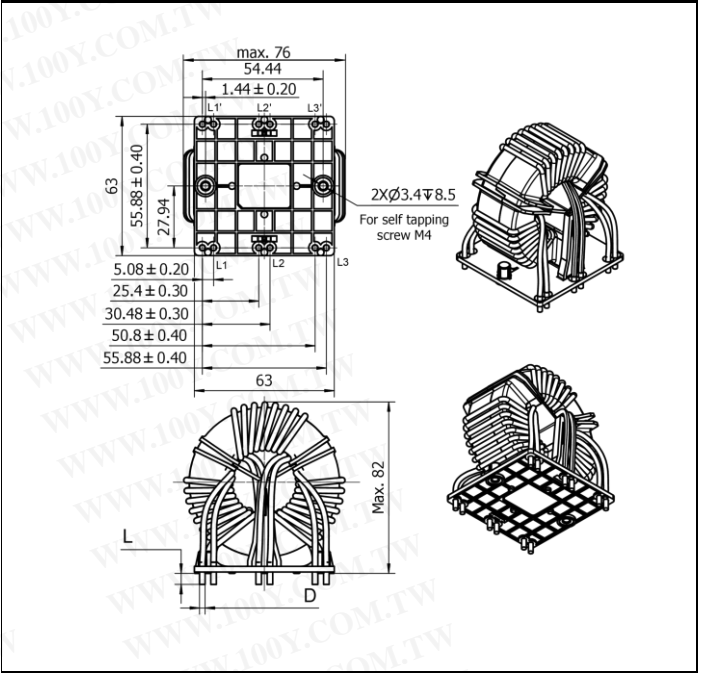




Size 11 (RB8532)



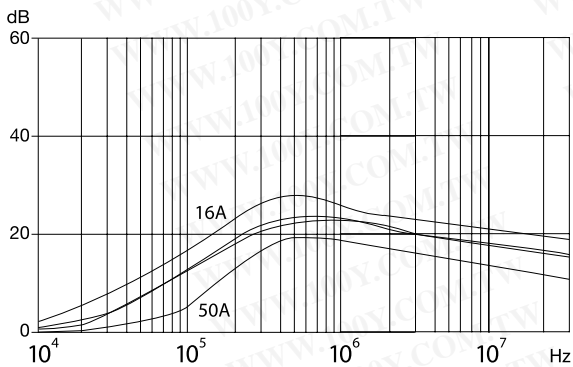
Size 12 (RB8532)



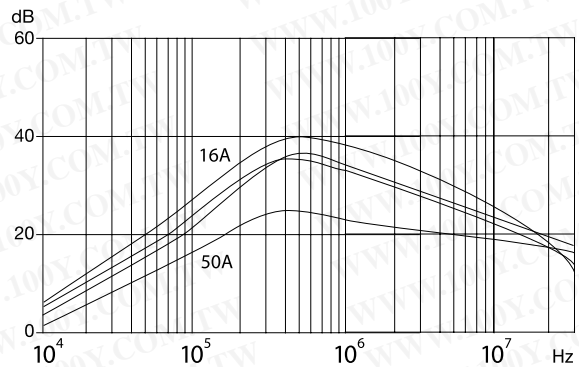
Typical choke attenuation/resonance frequency characteristics

Per CISPR 17; 50 Ω/50 Ω asym

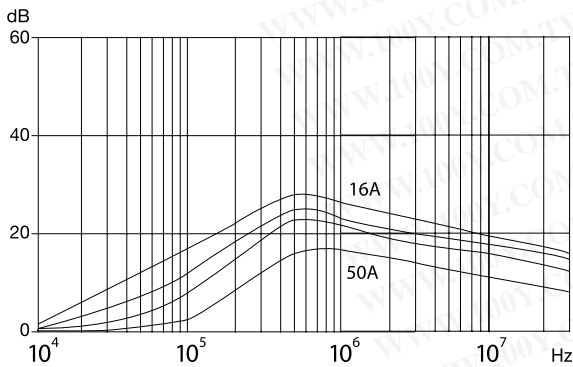
RB6122, RB6522



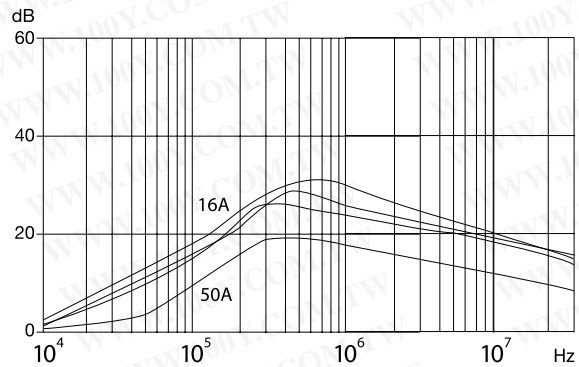
RB8522



RB6132, RB6532



RB8532



Typical saturation characteristics

Designation	max. DM peak current 25 °C IDM max @ 25 °C [A]	max. DM peak current 25 °C IDM max @ 100 °C [A]	max. CM peak current 25 °C ICM max @ 25 °C [A]	max. CM peak current 100 °C ICM max @ 100 °C [A]
RB6122-16-1M0	135	95	0.24	0.16
RB6122-25-0M6	160	112	0.31	0.21
RB6122-36-0M5	185	130	0.41	0.28
RB6122-50-0M3	270	189	0.58	0.40
RB6522-16-1M0	135	95	0.24	0.16
RB6522-25-0M6	160	112	0.31	0.21
RB6522-36-0M5	185	130	0.41	0.28
RB6522-50-0M3	270	189	0.58	0.40
RB8522-16-3M0	73	51	0.17	0.11
RB8522-25-2M0	126	88	0.27	0.18
RB8522-36-1M5	165	116	0.40	0.27
RB8522-50-0M8	225	158	0.55	0.36
RB6132-16-0M8	155	109	0.32	0.22
RB6132-25-0M5	225	158	0.41	0.28
RB6132-36-0M4	330	231	0.59	0.39
RB6132-50-0M2	335	235	0.88	0.59
RB6532-16-0M8	155	109	0.32	0.22
RB6532-25-0M5	225	158	0.41	0.28
RB6532-36-0M4	330	231	0.59	0.39
RB6532-50-0M2	335	235	0.88	0.59
RB8532-16-1M3	128	90	0.26	0.17
RB8532-25-0M9	195	137	0.39	0.26
RB8532-26-0M8	260	182	0.55	0.36
RB8532-50-0M3	395	277	0.88	0.59

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



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>

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



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 Trencos LLC

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