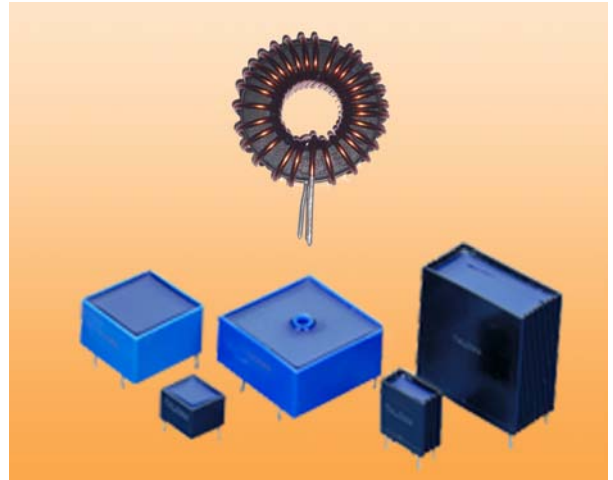


SA Series • High Power Density Compact Chokes for SMPS

Features

- High Current/Inductance ratings in compact toroidal package
- Very high efficiency. Gapped core structure allows up to 50% reduction in winding loss compared to powder core types
- Typically less than half the volume
- Operating Frequency up to 100kHz
- Fully encapsulated styles available meeting class GFK (-40°C to +125°C, humidity class F) as per DIN 40040
- Manufactured in ISO 9001:2015 and ISO 14001:2015 certified Talema facility
- Fully RoHS & REACH Compliant



Electrical Specifications @25°C

Test frequency: Inductance measured @10KHz / 100mV

Test voltage between windings: 500Vrms

Operating temperature: -40°C to +125°C

Climatic category: IEC68-1 40/125/56



Part Number	I _{DC} Amps	L (µH) Typ. @ Rated Current	L _O (µH) ±25% No Load	DCR mOhms Typical	Energy Storage (µJ) *	Schematic	Coil Size O.D. x Ht. (a x b)	Housing Size Code		Mounting Style (Terminal Ø)		
								F	V	O	F	V
SA_-0.63-22	0.63	22	23	95	4	1	12 x 8	17	20	0.355	0.60	0.80
SA_-0.63-33		33	35	118	7	1	12 x 8	17	20	0.355	0.60	0.80
SA_-0.63-47		47	49	141	10	1	13 x 9	17	20	0.355	0.60	0.80
SA_-0.63-68		68	70	167	13	1	13 x 9	17	20	0.355	0.60	0.80
SA_-0.63-100		100	105	206	20	1	13 x 9	17	20	0.355	0.60	0.80
SA_-0.63-150		150	157	276	29	1	13 x 9	17	20	0.335	0.60	0.80
SA_-0.63-220		220	248	348	44	1	14 x 9	17	20	0.335	0.60	0.80
SA_-0.63-330		330	389	436	65	1	14 x 9	17	20	0.335	0.60	0.80
SA_-0.63-470		470	480	421	92	1	16 x 8	22	20	0.335	0.60	0.80
SA_-0.63-680		680	728	519	136	1	17 x 9	22	25	0.335	0.60	0.80
SA_-0.63-1000		1000	1105	639	197	1	17 x 9	22	25	0.335	0.60	0.80
SA_-0.63-1500		1500	1523	801	299	1	22 x 8	29	30	0.335	0.60	0.80
SA_-0.63-2200		2200	2249	974	437	1	23 x 9	29	30	0.335	0.60	0.80
SA_-0.63-3300		3300	3514	1217	655	1	24 x 10	29	30	0.335	0.60	0.80
SA_-0.63-4700		4700	5345	1501	933	1	24 x 10	29	30	0.335	0.60	0.80
SA_-0.63-6800		6800	6949	2003	1351	1	27 x 16	32	35	0.335	0.60	0.80
SA_-0.63-8200	8200	9057	2287	1618	1	28 x 17	32	40	0.335	0.60	0.80	
SA_-1.0-22	1.0	22	23	59	11	1	12 x 8	17	20	0.450	0.60	0.80
SA_-1.0-33		33	35	73	17	1	12 x 8	17	20	0.450	0.60	0.80
SA_-1.0-47		47	49	88	23	1	13 x 9	17	25	0.450	0.60	0.80
SA_-1.0-68		68	73	107	34	1	13 x 9	17	25	0.450	0.60	0.80
SA_-1.0-100		100	102	110	51	1	16 x 9	22	25	0.450	0.60	0.80
SA_-1.0-150		150	151	134	74	1	16 x 9	22	25	0.450	0.60	0.80
SA_-1.0-220		220	230	165	110	1	16 x 9	22	25	0.450	0.60	0.80
SA_-1.0-330		330	362	207	167	1	18 x 10	22	25	0.450	0.60	0.80
SA_-1.0-470		470	472	252	236	1	22 x 9	29	25	0.450	0.60	0.80
SA_-1.0-680		680	698	307	342	1	24 x 10	29	25	0.450	0.60	0.80
SA_-1.0-1000		1000	1031	373	500	1	24 x 10	29	30	0.450	0.60	0.80
SA_-1.0-1500		1500	1641	470	746	1	24 x 10	29	30	0.450	0.60	0.80
SA_-1.0-2200		2200	2589	591	1100	1	25 x 11	29	30	0.450	0.60	0.80
SA_-1.0-3300		3300	3359	788	1646	1	28 x 17	32	40	0.450	0.60	0.80
SA_-1.0-4700		4700	4968	958	2360	1	28 x 17	32	40	0.450	0.60	0.80
SA_-1.0-6800		6800	8000	1215	3400	1	29 x 18	32	40	0.450	0.60	0.80

Talema's engineering staff can assist in the design of other inductance values and sizes.

SA Series • High Power Density Compact Chokes for SMPS

Electrical Specifications @25°C

Part Number	I _{DC} Amps	L (μH) Typ. @ Rated Current	L _O (μH) ±25% No Load	DCR mOhms Typical	Energy Storage (μJ) *	Schematic	Coil Size O.D. x Ht. (a x b)	Housing Size Code		Mounting Style Terminal Ød		
								F	V	O	F	V
SA_-1.6-22	1.6	22	23	38	27	1	13 x 8	17	20	0.560	0.560	0.800
SA_-1.6-33		33	27	49	42	1	14x 9	17	25	0.560	0.560	0.800
SA_-1.6-47		47	55	60	59	1	14 x 9	17	25	0.560	0.560	0.800
SA_-1.6-68		68	67	57	84	1	17 x 9	22	25	0.560	0.560	0.800
SA_-1.6-100		100	107	73	130	1	17 x 9	22	25	0.560	0.560	0.800
SA_-1.6-150		150	169	91	195	1	17 x 9	22	25	0.560	0.560	0.800
SA_-1.6-220		220	268	115	278	1	18 x 11	22	25	0.560	0.560	0.800
SA_-1.6-330		330	343	139	426	1	23 x 9	29	25	0.560	0.560	0.800
SA_-1.6-470		470	516	170	608	1	23 x 9	29	25	0.560	0.560	0.800
SA_-1.6-680		680	765	207	872	1	24 x 11	29	30	0.560	0.560	0.800
SA_-1.6-1000		1000	1300	165	1272	1	27 x 16	32	35	0.560	0.560	0.800
SA_-1.6-1500		1500	1549	345	1923	1	27 x 16	32	35	0.560	0.560	0.800
SA_-1.6-2200		2200	2402	430	2929	1	28 x 17	32	40	0.560	0.560	0.800
SA_-1.6-3300		3300	3458	565	4205	1	33 x 17	42	40	0.560	0.560	0.800
SA_-1.6-4700	4700	4968	718	6041	1	43 x 16	49	45	0.560	0.560	0.800	
SA_-1.6-5600	5600	6216	804	7161	1	45 x 18	49	--	0.560	0.560	--	
SA_-2.0-22	2.0	22	23	27	46	1	15 x 8	17	20	0.630	0.630	0.630
SA_-2.0-33		33	33	32	65	1	15 x 8	17	20	0.630	0.630	0.630
SA_-2.0-47		47	49	39	83	1	15 x 8	17	20	0.630	0.630	0.630
SA_-2.0-68		68	75	48	137	1	15 x 8	17	20	0.630	0.630	0.630
SA_-2.0-100		100	112	59	200	1	16 x 9	22	20	0.630	0.630	0.630
SA_-2.0-150		150	195	76	302	1	16 x 9	22	20	0.630	0.630	0.630
SA_-2.0-220		220	234	91	446	1	23 x 10	29	30	0.630	0.630	0.630
SA_-2.0-330		330	362	113	658	1	25 x 11	29	30	0.630	0.630	0.630
SA_-2.0-470		470	551	139	947	1	25 x 11	29	30	0.630	0.630	0.630
SA_-2.0-680		680	701	184	1374	1	27 x 16	32	35	0.630	0.630	0.630
SA_-2.0-1000		1000	1060	226	2014	1	29 x 18	32	40	0.630	0.630	0.630
SA_-2.0-1500		1500	1693	285	3013	1	29 x 17	32	40	0.630	0.630	0.630
SA_-2.0-2200		2200	2500	379	4401	1	35 x 19	49	45	0.630	0.630	0.630
SA_-2.0-3300		3300	3594	483	6612	1	46 x 19	49	--	0.630	0.630	--
SA_-2.0-3900	3900	4567	544	7855	1	46 x 19	49	--	0.630	0.630	--	
SA_-2.5-22	2.5	22	23	23	70	1	16 x 8	22	20	0.670	0.670	0.670
SA_-2.5-33		33	33	28	101	1	16 x 8	22	20	0.670	0.670	0.670
SA_-2.5-47		47	52	35	150	1	18 x 10	22	25	0.670	0.670	0.670
SA_-2.5-68		68	75	42	209	1	18 x 10	22	25	0.670	0.670	0.670
SA_-2.5-100		100	123	53	307	1	18 x 10	22	25	0.670	0.670	0.670
SA_-2.5-150		150	159	65	476	1	23 x 10	32	30	0.670	0.670	0.670
SA_-2.5-220		220	242	80	688	1	23 x 10	32	30	0.670	0.670	0.670
SA_-2.5-330		330	381	100	1023	1	23 x 10	32	30	0.670	0.670	0.670
SA_-2.5-470		470	476	131	1459	1	27 x 16	32	35	0.670	0.670	0.670
SA_-2.5-680		680	720	161	2138	1	27 x 16	32	35	0.670	0.670	0.670
SA_-2.5-1000		1000	1107	200	3114	1	29 x 18	32	40	0.670	0.670	0.670
SA_-2.5-1500		1500	1786	278	4743	1	34 x 18	42	40	0.670	0.670	0.670
SA_-2.5-2200		2200	2441	345	6867	1	43 x 16	49	--	0.670	0.670	--
SA_-2.5-2700		2700	3295	401	8444	1	43 x 16	49	--	0.670	0.670	--
SA_-3.15-22	3.15	22	23	19	107	1	16 x 8	22	20	0.750	0.750	0.750
SA_-3.15-33		33	36	24	164	1	18 x 10	22	25	0.750	0.750	0.750
SA_-3.15-47		47	56	29	238	1	18 x 10	22	25	0.750	0.750	0.750
SA_-3.15-68		68	71	35	346	1	22 x 8	29	25	0.750	0.750	0.750
SA_-3.15-100		100	103	42	488	1	24 x 10	29	30	0.750	0.750	0.750
SA_-3.15-150		150	165	54	736	1	24 x 10	29	30	0.750	0.750	0.750
SA_-3.15-220		220	266	68	1107	1	24 x 10	29	30	0.750	0.750	0.750
SA_-3.15-330		330	333	89	1619	1	28 x 17	32	40	0.750	0.750	0.750
SA_-3.15-470		470	492	108	2319	1	28 x 17	32	40	0.750	0.750	0.750
SA_-3.15-680		680	799	138	3369	1	28 x 17	32	40	0.750	0.750	0.750
SA_-3.15-1000		1000	1265	190	5020	1	35 x 19	42	40	0.750	0.750	0.750
SA_-3.15-1500	1500	1656	231	7393	1	44 x 17	49	--	0.750	0.750	--	

When Ordering, use suffix "O", "F" or "V" to designate desired package style.

Example: SAO for Open, SAV for Vertical and SAF for Flat Mount

SA Series • High Power Density Compact Chokes for SMPS

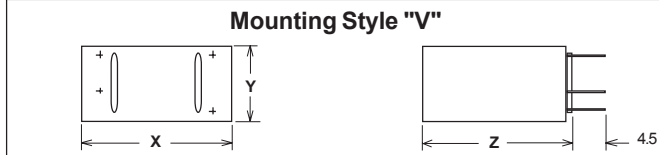
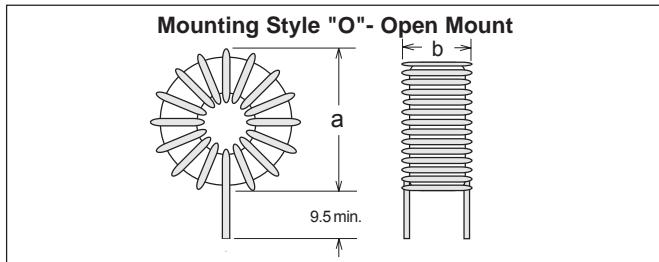
Electrical Specifications @25°C

Part Number	I _{DC} Amps	L (μH) Typ. @ Rated Current	L _O (μH) ±25% No Load	DCR mOhms Typical	Energy Storage (μJ) *	Schematic	Coil Size O.D. x Ht. (a x b)	Housing Size Code		Mounting Style Terminal Ød		
								F	V	O	F	V
SA_-4.0-22	4.0	22	23	15	165	1	16 X 8	22	20	0.850	0.850	0.850
SA_-4.0-33		33	39	19	260	1	18 x 11	22	25	0.850	0.850	0.850
SA_-4.0-47		47	48	22	375	1	22 x 9	29	25	0.850	0.850	0.850
SA_-4.0-68		68	75	28	556	1	24 x 11	29	30	0.850	0.850	0.850
SA_-4.0-100		100	113	35	812	1	24 x 11	29	30	0.850	0.850	0.850
SA_-4.0-150		150	157	48	1242	1	26 x 15	32	35	0.850	0.850	0.850
SA_-4.0-220		220	226	57	1752	1	28 x 17	32	40	0.850	0.850	0.850
SA_-4.0-330		330	360	72	2646	1	28 x 17	32	40	0.850	0.850	0.850
SA_-4.0-400		400	476	83	3239	1	28 x 17	32	40	0.850	0.850	0.850
SA_-4.0-470		470	508	94	3738	1	33 x 17	42	40	0.850	0.850	0.850
SA_-4.0-680	680	703	117	5515	1	44 x 17	49	--	0.850	0.850	--	
SA_-4.0-1000	1000	1191	153	8006	1	44 x 17	49	--	0.850	0.850	--	
SA_-5.0-22	5.0	22	28	13	281	1	19 x 11	22	25	0.950	0.950	0.950
SA_-5.0-33		33	35	15	430	1	22 x 9	29	25	0.950	0.950	0.950
SA_-5.0-47		47	51	19	596	1	22 x 9	29	25	0.950	0.950	0.950
SA_-5.0-68		68	75	23	831	1	25 x 11	29	30	0.950	0.950	0.950
SA_-5.0-100		100	100	31	1242	1	26 x 15	32	35	0.950	0.950	0.950
SA_-5.0-150		150	157	38	1882	1	26 x 15	32	35	0.950	0.950	0.950
SA_-5.0-220		220	237	47	2722	1	29 x 18	32	40	0.950	0.950	0.950
SA_-5.0-330		330	362	63	4068	1	34 x 18	42	40	0.950	0.950	0.950
SA_-5.0-470		470	492	78	5955	1	42 x 15	49	45	0.950	0.950	0.950
SA_-5.0-630		630	703	94	7914	1	45 x 18	49	--	0.950	0.950	--
SA_-5.0-680	680	845	103	8554	1	45 x 18	49	--	0.950	0.950	--	
SA_-6.3-22	6.3	22	24	9	450	1	23 x 9	29	25	1.120	1.120	1.120
SA_-6.3-33		33	35	11	635	1	23 x 9	29	25	1.120	1.120	1.120
SA_-6.3-47		47	55	14	959	1	26 x 12	29	30	1.120	1.120	1.120
SA_-6.3-68		68	68	18	1317	1	27 x 16	32	35	1.120	1.120	1.120
SA_-6.3-100		100	108	23	2051	1	27 x 16	32	35	1.120	1.120	1.120
SA_-6.3-150		150	166	28	2963	1	30 x 19	32	40	1.120	1.120	1.120
SA_-6.3-220		220	251	38	4435	1	35 x 19	42	40	1.120	1.120	1.120
SA_-6.3-330		330	357	48	6587	1	43 x 16	49	45	1.120	1.120	1.120
SA_-6.3-390	390	459	55	7842	1	46 x 19	49	--	1.120	1.120	--	
SA_-8.0-22	8.0	22	24	7	695	1	23 x 10	29	30	1.250	1.250	1.250
SA_-8.0-33		33	38	9	1037	1	26 x 13	29	30	1.250	1.250	1.250
SA_-8.0-47		47	47	12	1434	1	27 x 16	32	35	1.250	1.250	1.250
SA_-8.0-68		68	74	15	2241	1	27 x 16	32	35	1.250	1.250	1.250
SA_-8.0-100		100	123	20	3188	1	30 x 19	32	40	1.250	1.250	1.250
SA_-8.0-150		150	179	26	4698	1	35 x 19	42	40	1.250	1.250	1.250
SA_-8.0-220		220	244	32	7107	1	43 x 16	49	45	1.250	1.250	1.250
SA_-8.0-270		270	330	37	8554	1	46 x 19	49	--	1.250	1.250	--
SA_-10-22	10	22	22	7	1060	1	27 x 16	32	40	1.320	1.320	1.320
SA_-10-33		33	33	9	1589	1	27 x 16	32	40	1.320	1.320	1.320
SA_-10-47		47	51	11	2406	1	27 x 16	32	40	1.320	1.320	1.320
SA_-10-68		68	80	14	3280	1	27 x 16	32	40	1.320	1.320	1.320
SA_-10-100		100	127	19	5079	1	34 x 18	42	40	1.320	1.320	1.320
SA_-10-150		150	171	24	7442	1	43 x 16	49	--	1.320	1.320	--
SA_-10-180		180	233	27	8876	1	43 x 16	49	--	1.320	1.320	--
SA_-16-22	16	22	29	5	2986	2P	30 x 19	32	40	1.180	1.180	1.180
SA_-16-33		33	36	6	4128	2P	35 x 19	42	40	1.180	1.180	1.180
SA_-16-47		47	70	10	7150	2P	43 x 16	49	45	1.180	1.180	1.180
SA_-16-68		68	83	10	8554	2P	43 x 16	49	45	1.180	1.180	1.180
SA_-20-10	20	10	10	3	2011	2P	27 x 16	32	40	1.320	1.320	1.320
SA_-20-22		22	24	4	4278	2P	32 x 16	42	40	1.320	1.320	1.320
SA_-20-33		33	38	6	6867	2P	43 x 16	49	--	1.320	1.320	--
SA_-20-47		47	53	7	8976	2P	43 x 16	49	--	1.320	1.320	--

Notes:

- 1) The μJoule rating ($\frac{1}{2}LI^2$) is the ability of the inductor to store energy.
- 2) Schematic: 1 = One Winding; 2P = Two Windings, Parallel Connection.
- 3) Inductance measured @10KHz / 0.10Vrms without DC Current, @10KHz / 0.25Vrms with DC Current.
- 4) On larger units and units wound with finer wire additional mechanical mounting is recommended. See next page for Mounting Options.

Mounting Styles • SA Series • High Power Density Compact Chokes for SMPS



Dimensions	X x Y x Z	Schematics
Size 20	20.0 x 10.0 x 21.7	1 2
Size 25	25.0 x 12.5 x 26.7	1
Size 30	30.0 x 15.0 x 31.7	1 2P 7
Size 35	35.0 x 17.5 x 36.7	1 2P 7 8
Size 40	40.0 x 20.0 x 41.7	1 2P 8 9
Size 45	45.0 x 22.5 x 46.7	1 2P 9 10

Mounting Style "F"

Size	Dimensions	Schematics
Size 17		1 2
Size 22		1
Size 29		1 2 5
Size 32		1 2 9
Size 42		1 2 13
Size 49		1 2 3 7

Tolerance on Pin Length: ± 0.30mm

Regional Locations - Design, Manufacturing, Sales & Marketing

Talema Group Regional Offices

North America

**United States
(Sales & Marketing)**

Talema Group, LLC
 PO Box 935
 900 Innovation Drive
 Suite 120, Rolla
 Missouri 65402
 Tel: +1 573-303-3675
 E-Mail:
 sales@talemagroup.com
 Web: www.talema.com

Asia

**India
(Design, Manufacturing, Sales & Marketing)**

Administrative Office
Talema Electronic India Private Limited
 Door No. 221, 1st and 2nd Floor
 KJ Plaza, Opp.to Vidya Mandir School
 Meyanoor Main Road
 Salem - 636 004 Tamil Nadu INDIA
 Tel: +91 427 - 243 3100
 Fax: +91 427 - 243 3109
 E-Mail: talema@talemaindia.net
 Web: www.talema.com

Factory Premises
Talema Electronic India Private Limited
 Plot Nos. 30, 31 Electrical and Electronic
 Industrial Estate
 Suramangalam
 Salem - 636 005 Tamil Nadu INDIA
 Tel: +91 427 - 243 3000
 E-Mail: talema@talemaindia.net
 Web: www.talema.com

Europe

**Germany
(Design, Sales & Marketing)**

Talema Elektronik GmbH
 Sembdnerstr. 5
 82110 Germering
 Tel: +49 89 - 841 00 - 0
 Fax: +49 89 - 841 00 25
 E-Mail: info@talema.de
 Web: www.talema.com

**Ireland
(Design, Sales & Marketing)**

Nuvotem TEO
 Units W & X, Gweedore Business Park
 Derrybeg, Letterkenny, Co. Donegal
 Tel: +353 (0) 74 95 48666
 Fax: +353 (0) 74 95 48139
 E-Mail: info@nuvotem.com
 Web: www.nuvotem.com

**Czech Republic
(Design, Manufacturing, Sales & Marketing)**

NT Magnetics s.r.o.
 Chebská 27
 322 00 Plzeň
 Tel: +420 377 - 338 351
 Fax: +420 377 - 338 350
 E-Mail: talema@talema.cz
 Web: www.ntmagnetics.cz

Locations of Talema Group Regional Offices

