



SD Series • High Efficiency Storage Chokes

SD Series storage chokes provide excellent efficiency and field modulation when used as loading coils for interim energy storage with switch mode power supplies. The use of MPP cores allows compact size, a highly stable inductance over a wide bias current range and high "Q" with operating frequencies to 200kHz.



Features

- Operating frequency to 200kHz
- Small size and high "Q"
- Highly stable inductance with changing bias current
- Fully encapsulated styles available meeting class GFK (-40°C to +125°C, humidity class F) per DIN 40040.
- Manufactured in ISO-9001:2000, TS-16949:2002 and ISO-14001:2004 certified Talema facility
- Fully RoHS compliant

Electrical Specifications @ 25°C

Test frequency: Inductance measured @ 10kHz / 10mV

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) ±15% No Load	DCR mOhms Typical	Energy Storage (μJ) ¹	Schematic ² Mounting Style			Coil Size O.D. x Ht. (a x b)	Housing Size Code		Mounting Style Terminals Ød		
						O	F	V		F	V	O	F	V
SD_-0.63-400	0.63	400	474	537	79	1	1	1	15 x 7	17	20	0.250	0.600	0.800
SD_-0.63-500		500	620	670	99	1	1	1	15 x 7	17	20	0.250	0.600	0.800
SD_-0.63-630		630	820	563	12	1	1	1	15 x 7	17	20	0.280	0.600	0.800
SD_-0.63-1000		1000	1157	650	198	1	1	1	19 x 9	22	25	0.300	0.600	0.800
SD_-0.63-2000		2000	2695	992	397	1	1	1	20 x 9	22	25	0.300	0.600	0.800
SD_-0.63-2500		2500	3080	730	496	1	1	1	26 x 12	29	30	0.400	0.600	0.800
SD_-0.63-4000		4000	5625	1000	794	1	1	1	26 x 12	29	30	0.400	0.600	0.800
SD_-0.63-6000	1.0	6000	7600	1150	1191	1	1	1	30 x 15	32	35	0.40	0.600	0.800
SD_-1.0-250		250	323	354	125	1	1	1	15 x 7	17	20	0.355	0.600	0.800
SD_-1.0-500		500	580	210	250	1	1	1	19 x 9	22	25	0.450	0.600	0.800
SD_-1.0-1000		1000	1250	290	500	1	1	1	26 x 12	29	30	0.500	0.600	0.800
SD_-1.0-2500		2500	4160	550	1250	1	1	1	26 x 12	29	30	0.500	0.600	0.800
SD_-1.0-4000		4000	5970	820	2000	1	1	1	30 x 15	32	35	0.450	0.600	0.800
SD_-1.0-6000		6000	9260	970	3000	1	2R	1	37 x 15	42	40	0.500	0.500	0.800
SD_-1.6-160	1.6	160	251	127	205	1	1	1	15 x 7	17	20	0.500	0.800	0.800
SD_-1.6-315		315	443	289	408	1	1	1	19 x 8	22	25	0.355	0.800	0.800
SD_-1.6-400		400	613	266	502	1	1	1	19 x 9	22	25	0.400	0.800	0.800
SD_-1.6-500		500	695	115	640	1	1	1	26 x 12	29	30	0.710	0.800	0.800
SD_-1.6-1000		1000	1290	195	1280	1	2R	1	30 x 15	32	35	0.630	0.630	0.800
SD_-1.6-2500		2500	3670	380	3200	1	1	1	37 x 15	42	40	0.630	0.800	0.800
SD_-1.6-4000		4000	5440	450	5140	1	1	--	44 x 18	49	--	0.630	0.800	--
SD_-2.0-63	2.0	63	81	87	126	1	1	1	14 x 6	17	20	0.400	0.800	0.800
SD_-2.0-100		100	115	161	200	1	1	1	19 x 8	22	25	0.355	0.800	0.800
SD_-2.0-315		315	422	168	650	1	1	1	25 x 9	29	30	0.800	0.800	0.800
SD_-2.0-630		630	885	120	1260	1	1	1	26 x 12	29	30	0.750	0.800	0.800
SD_-2.0-1000		1000	1387	145	2000	1	1	1	30 x 15	42	35	0.750	0.800	0.800
SD_-2.0-1600		1600	2420	200	3200	1	1	1	37 x 15	42	40	0.800	0.800	0.800
SD_-2.0-2500		2500	3240	313	5000	1	1	--	46 x 20	49	--	0.850	0.850	--
SD_-2.5-63	2.5	63	99	62	197	1	1	1	14 x 6	17	20	0.500	0.800	0.800
SD_-2.5-100		100	129	122	312	1	1	1	19 x 8	22	25	0.400	0.800	0.800
SD_-2.5-160		160	241	132	489	1	1	1	19 x 8	22	25	0.450	0.800	0.800
SD_-2.5-200		200	275	70	630	1	2R	1	26 x 12	29	30	0.750	0.750	0.800
SD_-2.5-400		400	790	120	1250	1	2R	1	26 x 12	29	30	0.710	0.710	0.800
SD_-2.5-1000		1000	1521	125	3125	1	2R	1	39 x 16	42	45	0.950	0.950	1.000
SD_-3.15-63	3.15	63	80	62	312	1	1	1	19 x 8	22	25	0.500	0.800	0.800
SD_-3.15-100		100	157	60	498	1	1	1	19 x 8	22	25	0.600	0.800	0.800
SD_-3.15-160		160	234	86	794	1	1	1	25 x 10	29	30	0.600	0.800	0.800
SD_-3.15-250		250	570	85	1240	1	2P	1	26 x 12	29	30	0.560	0.560	0.800
SD_-3.15-630		630	1122	110	3125	1	2R	1	37 x 15	42	40	0.900	0.900	0.900

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Electrical Specifications at 25°C

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						O	F	V		F	V	O	F	V
SD_-4.0-47	4.0	47	65	55	376	1	1	1	20 x 9	22	25	0.500	0.800	0.800
SD_-4.0-100		100	144	68	800	1	1	1	25 x 10	29	30	0.600	0.800	0.800
SD_-4.0-160		160	240	40	1280	1	1	1	26 x 12	29	30	0.900	1.000	0.900
SD_-4.0-250		250	345	50	2000	1	1	1	30 x 15	42	45	0.950	1.000	1.000
SD_-5.0-47	5.0	47	60	44	588	1	1	1	25 x 10	29	30	0.600	0.800	0.800
SD_-5.0-63		63	91	43	797	1	1	1	25 x 10	29	30	0.670	0.800	0.800
SD_-5.0-100		100	165	27	1250	2P	2P	2P	26 x 12	29	30	0.750	0.750	0.750
SD_-5.0-250		250	357	40	3125	2R	1	1	39 x 16	42	45	1.180	1.180	1.180
SD_-6.3-47	6.3	47	76	44	946	1	1	1	26 x 11	29	30	1.000	1.000	1.000
SD_-6.3-63		63	120	17	1250	1	1	1	26 x 12	29A	30	1.180	1.180	1.180
SD_-6.3-100		100	160	28	2010	1	1	1	29 x 13	32	35	0.670	0.800	0.800
SD_-6.3-200		200	266	44	3969	2P	2P	2P	38 x 17	42	40	0.850	0.850	0.850
SD_-8.0-47	8.0	47	63	43	1507	1	1	1	29 x 13	32	35	0.670	0.800	0.800
SD_-8.0-63		63	95	12	2016	2P	2P	1	30 x 15	32	35	0.950	0.950	0.950

The Talema engineering staff can assist in the design of other inductance values and sizes including pre-designed cable lug models to 63 Amps.

1) The μJoule rating ($\frac{1}{2}LI^2$) is the ability of the inductor to store energy.

2) Schematic:

1 = one winding

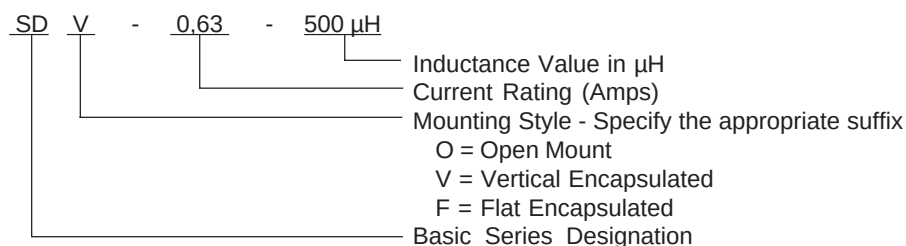
2P = two windings, Parallel Connection

2R = two windings, Series Connection.

3) Inductance measured at 0.10 Vrms @ 10kHz without DC Current and 0.25 Vrms @ 10kHz with DC Current.

4) On larger units and units wound with fine wire, additional mechanical mounting is recommended. See next page for Mounting Styles.

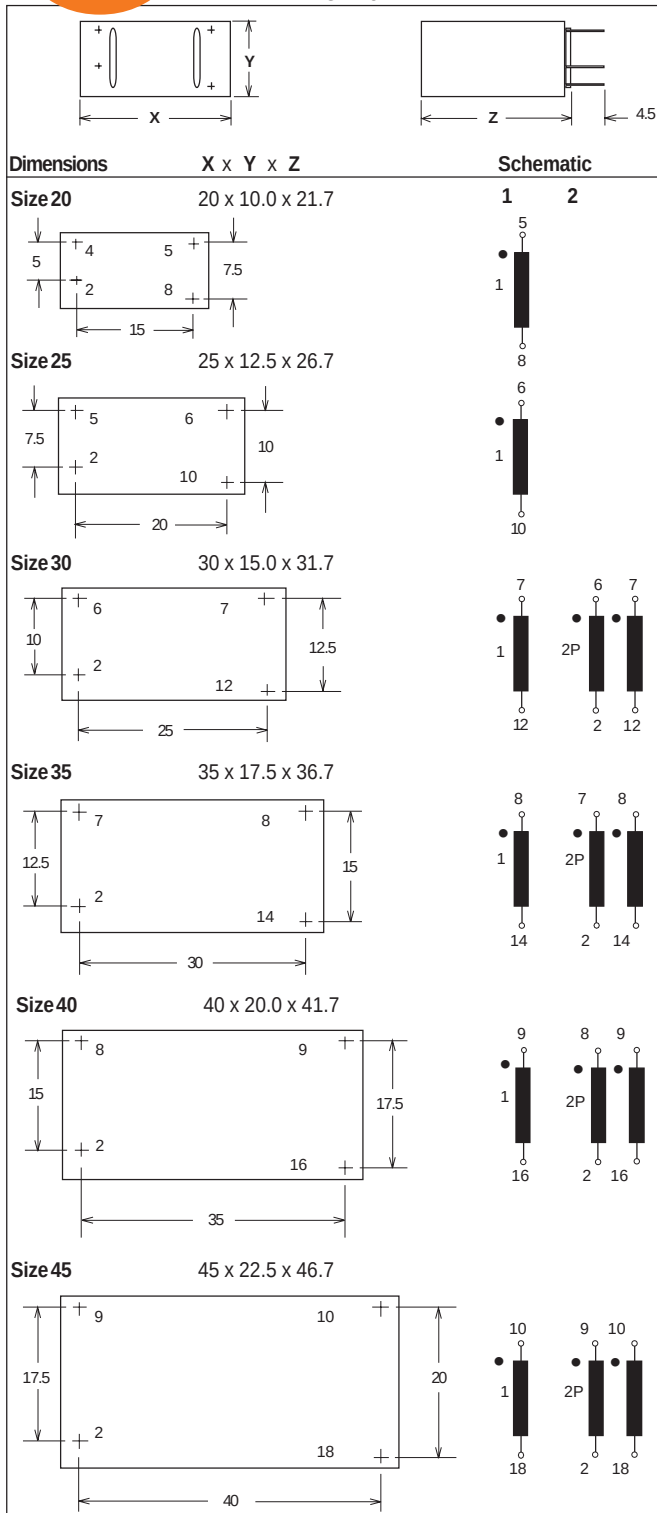
Ordering Key



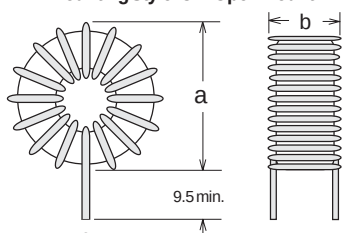


Mounting Styles • SD Series • High Efficiency Storage Chokes

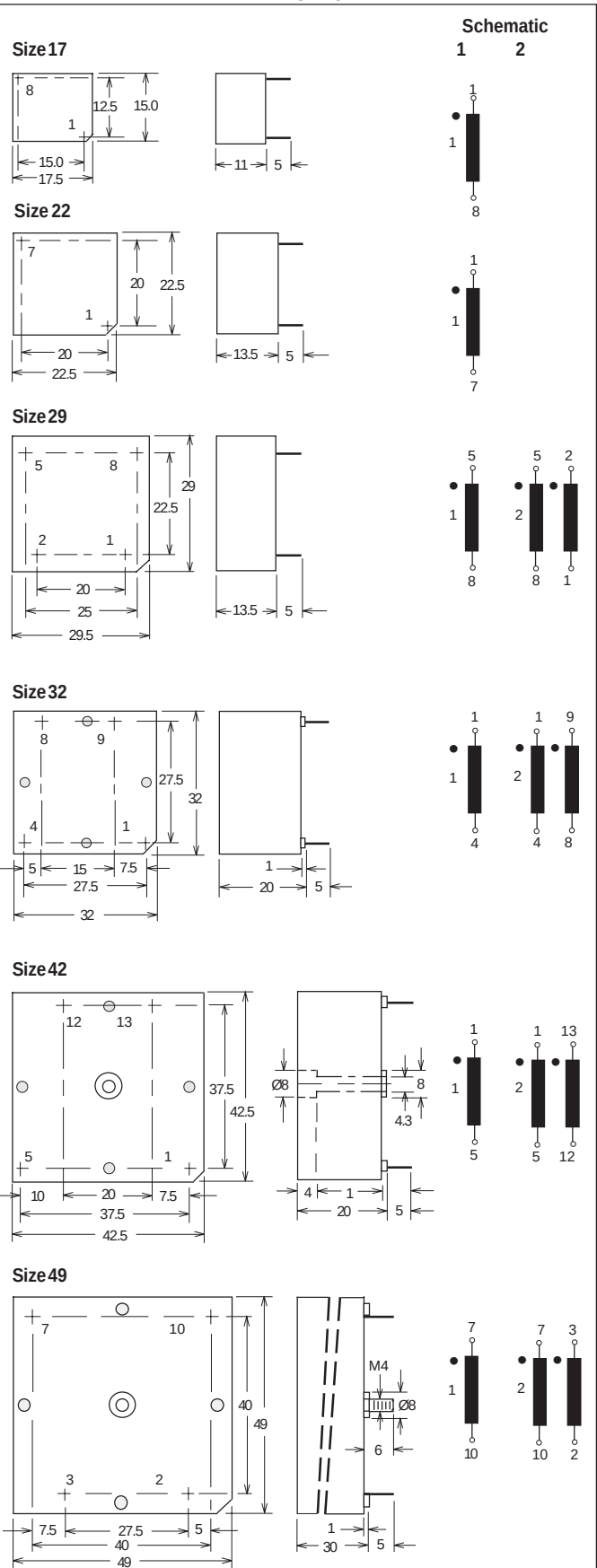
Mounting Style V



Mounting Style 'O' = Open Mount



Mounting Style F



Tolerance on Pin Length: $\pm 0.3\text{mm}$