

## EPCOS Product Brief 2014

# High-Current Chokes

## Current-Compensated Common-Mode Chokes

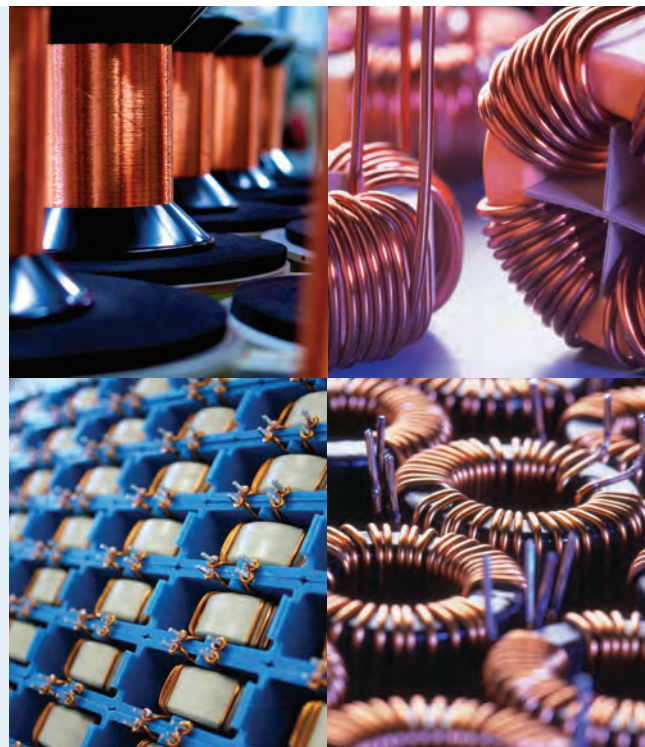
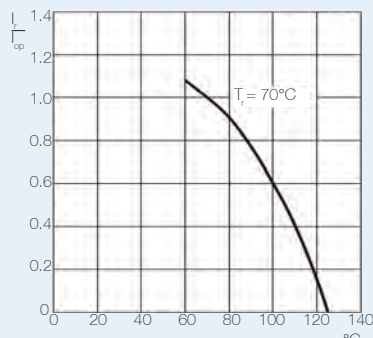
### New high-current common-mode chokes featuring:

- Glueless design
- High voltages 600 V/1000 V
- UL class F (155°C)

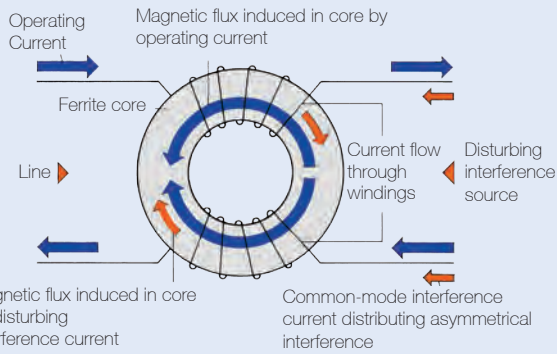
Compact electrical and electronic equipment primarily generates common-mode interference. In order to be able to meet the safety requirements (keeping within the leakage current limits), chokes with a high asymmetrically effective inductance must be used. Current-compensated chokes with a closed core topology are especially suitable for this purpose. The problem of core material saturation due to the useful current is solved in these designs by winding two coils with equal number of turns on the core. These coils are connected in such a way that the magnetic flux induced by the upper coil is compensated by the lower coil.

### Derating Curve

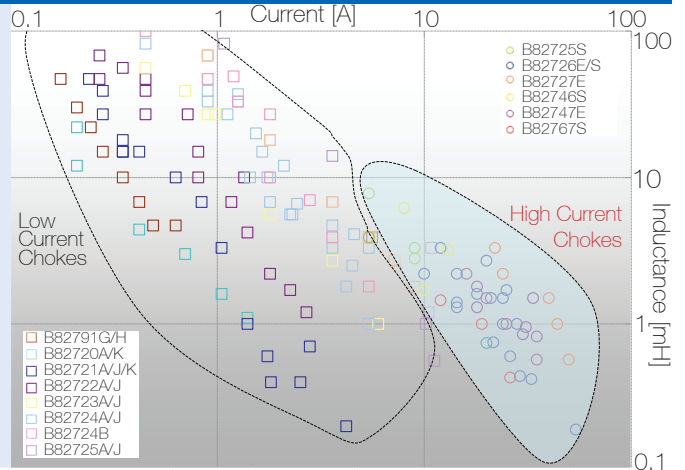
- Ambient temperatures based on 70°C part rating
- Derating curve based on 70°C part rating
- Operating current of chokes to follow curve
- AC voltages rated at 50/60 Hz



# Magnetic Flux



# Selection Guide



## High-Current Chokes

	$I_r/70^\circ\text{C}$ [A]	$L_r$ [mH]	L-tol.	$L_{\text{stray}}$ [ $\mu\text{H}$ ]	$R_{\text{typ}}$ [m $\Omega$ ]	$V_r$	V/H	Core	Ordering Code	UL EIS*
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### Double Chokes

#### B82725S



5.4	3.9	+/-30%	33	24	250V~	V	R32	B82725S2602N002	No
5.4	7.8	+/-30%	35	24	250V~	V	R32	B82725S2602N041	No
9	2.8	+/-30%	30	12.5	250V~	V	R32	B82725S2103N003	No
9	3.3	+/-30%	35	13.5	250V~	V	R32	B82725S2103N004	No

#### B82726S/E



11	2.2	+/-30%	47	12	250V~/750V~	V	R40	B82726S6103N001	Yes
14	3.3	+/-30%	32	8.4	250V~/750V~	V	R40	B82726S6123N020	Yes
14.4	1.4	+/-30%	21	7.1	250V~	V	R42	B82726S2163N002	No
14.4	2.2	+/-30%	24	7.1	250V~	V	R42	B82726S2163N030	No
15	1.3	+/-30%	16	5	250V~	H	R42	B82726S2183N020	No
18	1.6	-30/+50%	15	4.5	250V~	V	R36	B82726S2203A020	No
20	2.7	-30/+50%	19.3	4.4	600V~/1000V~	V	R42	B82726E6203B041	Yes
21	1.5	-30/+50%	8.3	2.8	600V~/1000V~	V	R36	B82726E6213A040	Yes
21.6	0.75	-30/+50%	8	3.2	250V~	V	R36	B82726S2243A020	No
24	1	-30/+50%	5.7	2.3	600V~/1000V~	V	R36	B82726E6243A041	Yes
24	1.5	-30/+50%	11	3.2	600V~/1000V~	V	R42	B82726S6203A040	Yes
25	1.7	-30/+50%	10	2.75	300V~	H	R42	B82726S3223A340	Yes
26	0.6	-30/+50%	3.8	1.7	600V~/1000V~	V	R36	B82726E6263A040	Yes
28	1	-30/+50%	7	2.1	600V~/1000V~	V	R42	B82726E6283B040	Yes
29	0.44	-30/+50%	2.9	1.5	600V~/1000V~	V	R36	B82726S6243A040	Yes
33	0.42	-30/+50%	3.5	1.4	600V~/1000V~	V	R42	B82726E6333B040	Yes
56	0.19	-30/+50%	1.3	1.1	300V~	V	R42	B82726S3543N040	Yes

#### B82727E



22	3.3	-30/+50%	20	4.6	600V~/1000V~	V	R50	B82727E6223A040	Yes
24	2.2	-30/+50%	15	3.9	600V~/1000V~	V	R50	B82727E6243A040	Yes
40	1.5	-30/+50%	9	1.7	600V~/1000V~	V	R50	B82727E6403A040	Yes
44	1	-30/+50%	6.3	1.35	600V~/1000V~	V	R50	B82727E6443A040	Yes
50	0.57	-30/+50%	3.7	1	600V~/1000V~	V	R50	B82727E6503A040	Yes

### Triple Chokes

#### B82746S



8	6.2	-30/+50%	34	18	550/320V~	H	R42	B82746S6702A040	Yes
10	1.7	-30/+50%	14	9.8	520/300V~	V	R38	B82746S4103A020	No
10	2	-30/+50%	19	9.6	500/300V~	V	R38	B82746S4103A021	No
13	3.2	-30/+50%	16	6.5	550/320V~	H	R42	B82746S4143A040	Yes
14	0.35	+/-35%	3.8	3.7	440/250V~	V	R34	B82745S6123N002	No
20	0.75	-30/+50%	8	2.7	500/300V~	H	R42	B82746S4203A020	Yes
20	1.15	-30/+50%	8	2.7	500/300V~	H	R42	B82746S4203A040	Yes

#### B82747E/S



16	2.2	-30/+50%	11.5	6	600/350V~	V	R50	B82747E6163A040	Yes
18	1.8	+/-30%	17	4.7	440/250V~	H	R58	B82747S4183N021	Yes
18	1.3	+/-30%	15	5.2	520/300V~	V	R50	B82747S4203A020	No
20	1.5	-30/+50%	9	4.2	600/350V~	V	R50	B82747E6203A040	Yes
25	1	-30/+50%	5.5	2.8	600/350V~	V	R50	B82747E6253A040	Yes
30	0.85	+/-35%	5.5	1.9	500/300V~	H	R50	B82747S4253A040	Yes
31	0.95	+/-30%	5	1.5	440/250V~	H	R50	B82747S6313N061	Yes
35	0.57	-30/+50%	3	1.4	600/350V~	V	R50	B82747E6353A040	Yes
35	0.82	+/-35%	4	1.4	500/300V~	H	R50	B82747S4303A041	Yes
35	1.5	+/-30%	10	2.6	440/250V~	H	R58	B82747S4423N020	Yes

### Quadruple Chokes

#### B82767S



12	1.45	-30/+50%	13	7.1	500/300V~	H	R50	B82767S4123N030	Yes
19	1	-30/+50%	7.7	2.8	500/300V~	H	R50	B82767S4193N030	Yes
26	0.43	-30/+50%	3.6	1.5	500/300V~	H	R50	B82767S4263N030	Yes

\* UL Electrical Installation System Class 155(F)