

High inductance and  
high impedance in a  
wide frequency range

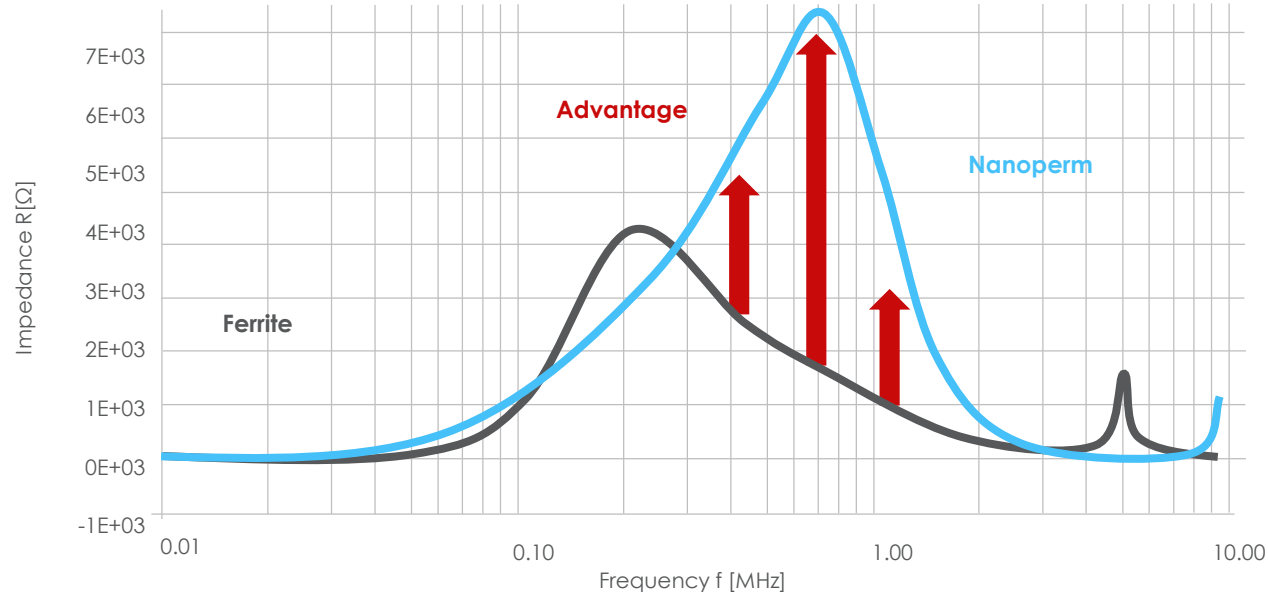
Advanced EMI  
suppression over a  
wide frequency range

Low saturation flux  
density drop at high  
temperatures

High operational  
temperature up to  
130°C

Curie temperature  
as high as app.  
600°C

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Magnetec offers this standard range of 2-fold common-mode chokes based on nanocrystalline tape wound cores from Nanoperm for any EMI filter application compared to widely spread ferrite versions, Magnetec's nanocrystalline solutions enable significantly smaller and lighter EMI suppression filters. In frequency inverter applications the smaller size enables to integrate former external filters into the inverter housing which is a very attractive option for the market. Furthermore, the smaller design results in lower copper losses and thus lower overtemperature and reduced cooling cost. Compared to ferrite chokes, the 2-fold common-mode chokes offer significantly higher attenuation levels up to the MHz range, better saturation performance and are more temperature-resistant with the same core size. Chokes are available for the nominal current range from 2–40 Amps, designed acc. to EN60938-1. Operating temperature range: -40...+70°C. The plastic materials fulfill UL-94 V0 and are UL listed.

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Types	$I_{nom}$ [A] convection cooling	$I_{nom}$ [A] forced cooling	$*I_{sat}$ [mA]	$L_{nom}$ @10kHz [mH]	$L_s$ [μH]	$R_{cu}$ [mΩ]	Pin-Ø [mm]	style	Dimensions [mm] $Do_{max} \times Di_{min} \times H_{max}$
<a href="#">MB-690</a>	2	2,8	13	2 x 20,0	~ 19	< 85	0,7	flat	22,6 x 22,2 x 12,7
<a href="#">MB-631</a>	3	4	17	2 x 11,5	~ 11	< 40	0,7	flat	22,6 x 22,2 x 12,7
<a href="#">MB-694</a>	3	4	20	2 x 11,0	~ 10	< 40	0,56	upright	22 x 12,3 x 25
<a href="#">MB-602</a>	4	5,5	15	2 x 75,0	~ 55	< 65	0,8	upright	34 x 19 x 35,5
<a href="#">MB-618</a>	4,5	6	25	2 x 5,0	~ 8	< 23	0,7	flat	22,6 x 22,2 x 12,7
<a href="#">MB-640</a>	6	8	25	2 x 6,3	~ 6	< 22	0,71	upright	22 x 12,3 x 25
<a href="#">MB-606</a>	7	10	25	2 x 30,0	~ 55	< 27	1,0	upright	34 x 19 x 35,5
<a href="#">MB-609</a>	8	11	30	2 x 18,0	~ 13	< 17	2 x 0,8	upright	34 x 19 x 35,5
<a href="#">MB-639</a>	8,5	12	120	2 x 35,0	~ 20	< 21	1,12	upright	34 x 19 x 35,5
<a href="#">MB-622</a>	10	14	450	2 x 0,6	~ 4	< 8,5	1,0	upright	34 x 19 x 35,5
<a href="#">MB-603</a>	10	14	40	2 x 12,0	~ 10	< 11	2 x 0,85	upright	34 x 19 x 35,5
<a href="#">MB-696</a>	12	17	100	2 x 7,1	~ 30	< 12,1	1,4	upright	38,5 x 23 x 40
<a href="#">MB-632</a>	14	20	45	2 x 2,4	~ 3	< 8	0,9	upright	22 x 12,3 x 25
<a href="#">MB-684</a>	16	22	80	2 x 3,0	~ 2,5	< 2,5	1,8	upright	30 x 20 x 30
<a href="#">MB-607</a>	16	22	55	2 x 6,3	~ 5	< 6	2 x 1,12	upright	34 x 19 x 35,5
<a href="#">MB-605</a>	18	25	80	2 x 3,0	~ 5	< 4	2 x 1,0	upright	34 x 19 x 35,5
<a href="#">MB-620</a>	19	27	85	2 x 35,0	~ 12	< 7,5	2,0	flat	59 x 59 x 33,5
<a href="#">MB-921<sup>1</sup></a>	20	28	270	2 x 1,8	~ 8	< 6	1,6	flat	60 x 60 x 24
<a href="#">MB-615</a>	22	30	110	2 x 1,6	~ 2	< 1,7	2 x 1,32	upright	34 x 19 x 35,5
<a href="#">MB-608</a>	26	36	185	2 x 0,6	~ 5	< 1,6	2 x 1,18	upright	34 x 19 x 35,5
<a href="#">MB-633</a>	30	42	140	2 x 1,0	~ 0,8	< 1,2	2 x 1,5	upright	34 x 19 x 35,5
<a href="#">MB-740</a>	40	56	485	2 x 4,5	~ 3,9	< 1,85	2,5	flat	52 x 52 x 32

For all information no liability assumed; \*Isat: "Quasi Saturation Current" @  $B = 1,0 \text{ T} / \mu_{nom} / N = 1$ , Saturation current Isat of Nanoperm: Peak value of the exiting current when the initial inductance level is dropped to 10 per cent, see [www.magnetec.de](http://www.magnetec.de). Environment temperature of 70°C, at another environment temperature, the new nom. current can be estimated acc. to the derating theory: [www.magnetec.de/derating](http://www.magnetec.de/derating). Overtemperature needs to be checked in the application. At forced cooling, double Rth value is assumed. <sup>1</sup> preliminary