

Softmagnetic Core Material | SoftProtector® Cores Product Leaflet



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SoftProtector® Cores to suppress damaging unbalanced currents

Modern high-power, frequency converter operated systems, especially those that are operated at very high switching frequencies, cause harmful interference currents which, among other things, groove and destroy the bearings of motors as so-called bearing currents. Systems stop unexpectedly, communication problems can arise, the function of sensors can be affected, and even motor terminals can wear out. By using easy-to-retrofit SoftProtector® Cores, such a malfunction can be reduced to a minimum so that your system can be operated with a calculable maintenance cycle. It may also be possible to

switch from hybrid bearings to conventional steel bearings. The SoftProtector® Cores absorb the harmful high-frequency part of the interference current and convert it into thermal energy, which can be released without damage via the core surface. When placed correctly, you not only protect the bearings of your engine, but also the entire system.

SoftProtector® Cores are working as single turn common mode choke and reduce the asymmetrical radio frequency noise current without affecting the symmetrical power current.

Technical Specifications

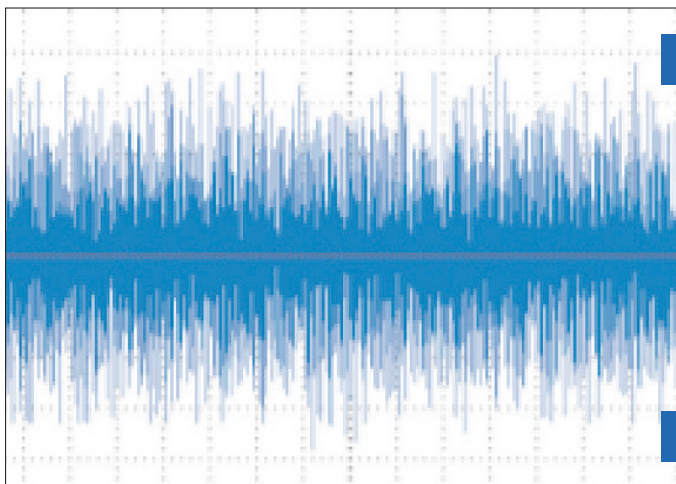
Types / Reference		Nom. Dimensions [mm]			Finished dimensions [mm]			Lfe (cm)	Afe (cm²)	AL nom. @10kHz / 100kHz [μH]						Finishing
		OD	ID	H	OD	ID	H			5.000μ	30.000μ	60.000μ				
NO5040-	MRCxxx	50	40	20	60,7/40,7	42,7/24,8	22,3	14,14	0,76	MRC557	3,3 / 2,2	MRC357	20,2 / 8,5	MRC057	40,5 / 14,1	oval cased
NO6350-	MRCxxx	63	50	30	82,7/45,5	57,5/20,9	33	17,75	1,48	MRC558	5,2 / 3,4	MRC358	31,4 / 13,2	MRC058	62,9 / 22,0	oval cased
FS6545-	MRCxxx	65	45	30	70	40	35	17,72	2,40	MRC589	8,3 / 5,2	MRC389	50,0 / 26,0	MRC089	90,0 / 40,0	cased
NO8063-	MRCxxx	80	63	30	101/62	68/28	37	22,46	1,94	MRC559	5,4 / 3,6	MRC359	32,5 / 13,6	MRC059	65,0 / 22,7	oval cased
NO10575	MRCxxx	105	75	30	111	70	35	28,27	3,42	MRC546	7,6 / 5,0	MRC346	45,6 / 25,9	MRC046	136,8 / 36,9	cased
NO10080	MRCxxx	100	80	30	130/66	94/30	36,6	28,16	2,25	MRC596	5,1 / 2,9	MRC396	30,4 / 17,3	MRC096	60,8 / 25,5	oval cased
FS130100-	MRCxxx	130	100	30	135	95	36	36,13	3,42	MRC560	5,9 / 3,9	MRC360	35,6 / 14,9	MRC060	71,3 / 24,9	cased
NO132104-	MRCxxx	132	104	20	172/78	131/37	25	37,23	2,20	MRC550	3,7 / 2,4	MRC350	22,3 / 9,3	MRC050	44,6 / 15,6	oval cased
FS140100-	MRCxxx	140	100	25	144	96	31	37,70	3,80	MRC567	6,3 / 4,2	MRC367	38,0 / 15,9	MRC067	76,0 / 26,6	cased
FS160130	MRCxxx	160	130	25	165	125	30	45,55	2,85	MRC561	3,9 / 2,6	MRC361	23,5 / 9,9	MRC061	47,1 / 16,5	cased
NO160130-	MRCxxx	160	130	30	197/111	155/69	36	45,55	3,42	MRC562	4,7 / 3,1	MRC362	28,3 / 11,8	MRC062	56,6 / 19,8	oval cased
NO160130-	MRCxxx	160	130	30	165	125	36	45,55	3,42	MRC551	4,7 / 3,1	MRC351	28,3 / 11,8	MRC051	56,6 / 19,8	cased
NO170120-	MRCxxx	170	120	25	175	114,1	31	45,55	4,75	MRC552	6,5 / 4,3	MRC352	39,3 / 16,5	MRC052	78,6 / 27,5	cased
FS210170-	MRCxxx	210	170	30	217	163	37	59,60	4,68	MRC553	3,7 / 2,5	MRC353	22,4 / 14,9	MRC053	62,4 / 15,6	cased
FS270210-	MRCxxx	270	210	25	277	204	31	75,36	6,08	MRC595	4,75 / 2,8	MRC395	28,5 / 16,2	MRC095	57 / 24	cased
NO237200-	MRCxxx	237	200	30	305/147	249/95	37	68,64	4,22	MRC555	3,8 / 2,5	MRC355	23,1 / 9,7	MRC055	46,3 / 16,2	oval cased
NO300250-	MRCxxx	300	250	30	392/160	326/94	37	87,02	5,24	MRC556	3,9 / 2,3	MRC356	22,7 / 9,5	MRC056	45,4 / 15,9	oval cased

The information is non-binding and can be adjusted without prior information.

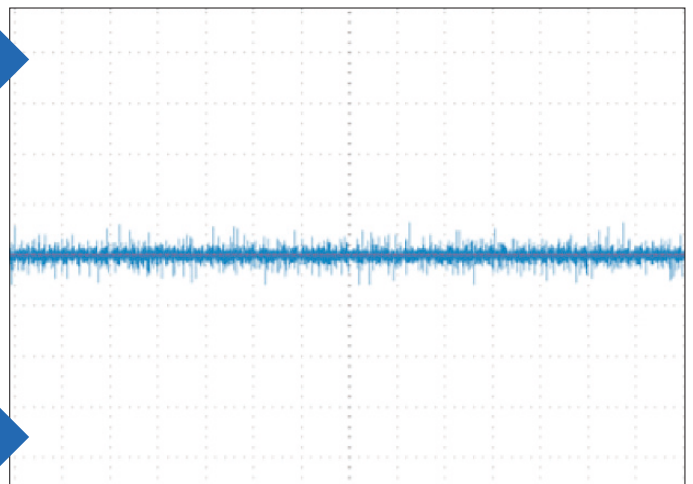
Example of a bearing damage:



Without SoftProtector® Core:



With SoftProtector® Core:



Scan to get the Installation Guide:



You have not found the right core?
Please contact us at info@mrccomponents.de

Important note: For safety and the proper usage, you are requested to approve the offered product specification for your application. These products are designed for general electronic devices. Performance and safety of this product for applications which could lead to physical harm is not confirmed. Be sure to examine the performance and safety when the product is used for these applications and take appropriate measures, such as failsafe, to avoid any accident. It is the responsibility of user to take such measures.