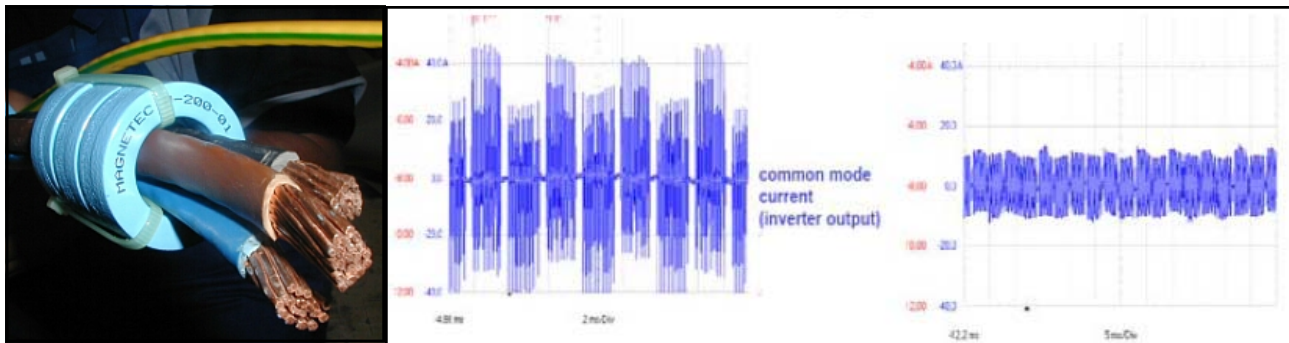


COOL BLUE® Cool Blue Tape Wound Cores Reduce Motor-Bearing Currents

Cool Blue® toroids made from the nanocrystalline material NANOPERM are being used increasingly to reduce damaging motor bearing currents in modern high power inverter systems operating at high switching frequencies. As a result of these unwanted currents, the bearings corrugate, leading to electrical breakdown in the lubrication and finally to a standstill of the entire motor.

This method significantly increases the service life of the motor bearings and thus reduces maintenance costs and standstill periods.



TYPE	Nominal OD x ID x TH (mm)	Physical OD x ID x TH (mm)	Mass (gm)	Path Length (l_e) (cm)	Core Area (A_e) (cm^2)	AL Value @ 10KHz (μH)	Current I_{cm} (A)
M-112	63 x 50 x 30	68.0 x 43.0 x 36.0	204	17.7	1.44	23.3—46.6	4
M-113	80 x 63 x 30	86.0 x 55.0 x 36.0	338	22.4	2.04	24.1—48.2	6
M-283	80 x 63 x 30	OVAL	338	22.4	2.04	24.1—48.2	6
M-114	100 x 80 x 30	108 x 70.0 x 36.0	500	28.2	2.40	22.5—45.0	8
M-284	100 x 80 x 30	OVAL	500	28.2	2.40	22.5—45.0	8
M-115	130 x 100 x 30	135 x 92.0 x 36.0	958	35.9	3.60	26.4—52.9	9
M-142	130 x 100 x 30	OVAL	604	36.7	2.22	16.0—32.0	8
M-116	160 x 130 x 30	164 x 122 x 36.0	1,208	45.4	3.60	20.9 x 41.9	12
M-302	160 x 130 x 30	OVAL	1,208	45.4	3.60	20.9 x 41.9	12
M-117	200 x 175 x 30	204 x 166 x 36.0	1,302	58.8	3.00	13.5—26.9	16
M-111	240 x 200 x 30	OVAL	2,219	69.9	4.32	16.4—32.8	20
M-248	300 x 254 x 30	OVAL	3,242	86.7	5.04	15.3—30.5	22
M-205	300 x 250 x 30	304 x 246 x 34.0	3,722	86.2	5.85	18.0 x 36.0	23
M-503	500 x 450 x 30	504 x 446 x 36.0	6,430	149.1	5.85	10.3—20.7	40

Operating Temperature Range: -40 to +120°C. Temp Class E, Isolation Class B, Plastic cases fulfill UL-94HB



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