

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 saturation current and lower power loss

High operational temperature up to 130°C

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MAGNETEC offers advanced and superb EMC-cores based on nanocrystalline NANOPERM® material. Our NANOPERM® material has excellent magnetic properties as its saturation inductance is ca. 1,2T, permeability is adjustable from 0.5k up to 90k@10kHz, curie temperature is about 600°C and the losses are only 110W/kg@100kHz, 0,3T sin. MAGNETEC have built up a wide standard range of cased cores and offers them with different permeabilities. Our cased cores are encapsulated in a plastic housing with a max temperature about 130°C.

Nom. dim	16x10x6	20x12x8	25x20x10	25x16x10	30x20x10	40x32x15	40x25x15	45x30x20	50x40x20	
ODxDxH	18,2x7,8x8,4	22,3x10,3x10	27,8x17,5x12,6	28,2x13,2x12,6	32,7x17,8x12,6	43,1x28,8x17,4	44,5x21,4x19	48,5x25,5x24	53,4x36,6x23,5	
μ_r ~ca. 0.5k	M-1520*** Isat= 64A	M-1521*** Isat=78A	M-1522*** Isat=112A	M-1523*** Isat=100A	M-1524*** Isat=123A	M-1525*** Isat=180A	M-1526*** Isat=160A	M-1527*** Isat=185A	M-1528*** Isat=224A	
μ_r ~ca. 1k	M-1601 Isat= 32A	M-1201 Isat=40A	M-1251(c+) Isat=56A	M-659(c+) Isat=50A	M-660(c+) Isat=62A	M-661 Isat=90A	M-1401 Isat=80A	M-1451 Isat=92A	M-1501 Isat=112A	
μ_r ~ca. 2k	M-956 Isat=16A	M-1202 Isat=20A	M-1252(c+) Isat=28A	M-669(c+) Isat=25A	M-670(c+) Isat=31A	M-671 Isat=45A	M-1402 Isat=40A	M-796** Isat=46A	M-1502 Isat=56A	
μ_r ~ca. 4k	M-957 Isat=8A	M-1204 Isat=10A	M-1254(c+) Isat=14A	M-679(c+) Isat=12A	M-680(c+) Isat=16A	M-681 Isat=22A	M-934 Isat=16A	M-762 Isat=23A	M-1504 Isat=28A	
μ_r ~ca. 8k	M-709 Isat=4A	M-1208 Isat=5A	M-1258(c+) Isat=7A	M-449(c+) Isat=6A	M-965/ M-450(c+) Isat=8A	M-451 Isat=11A	M-831** Isat=10A	M-1458 Isat=12A	M-951 Isat=14A	
μ_r ~ca. 30k	M-104/ M-125(c++) Isat=1A	M-556 Isat=1A	M-061(c+) Isat=2A	M-062(c+) Isat=1,5A	M-923 Isat=2A	M-994 Isat=3A	M-382 Isat=3A	M-987 Isat=3A	M-967/ M-049 (O) Isat=5A	
μ_r ~ca. 90k	M-940/ M-017(c+)/ M-939(c++) Isat=0,4A	M-059 Isat=0,5A	M-853(c+) Isat=0,6A	M-974(c+) Isat=0,6A	M-845 Isat=0,6A	M-102 Isat=0,7A	M-981 Isat=1A	M-920 Isat=0,9A	M-765 Isat=1A	M-1592 Isat=1,2A

C+: Plastic case with separator holder /C++: Plastic case with base / O: oval shaped versions /***: preliminary /**: almost same size see datasheet

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Definition of Saturation Current I_{sat} of NANOPERM®:

Peak value of the exiting current when the initial inductance level is dropped to 10 per cent. Saturation behavior is very much depending on frequency, signal shape, leakage field, etc. so the mentioned current value is a calculated value for design help only and cannot be guaranteed. I_{sat} is calculated @ $B = 1,0 T / \mu_{nom} / N = 1$.

Nom. dim	50x40x25	63x50x30	80x63x30	100x80x30	130x100x30	160x130x30	200x175x30 236,5x201x30(O)	300x250x30
ODxDxH	53,6x35,9x29,5	68x43x36	85x57x35,5	105x75x35	135x94x34	165x123x34	208x166x37	305x246,5x35
$\mu r \sim$ ca. 0.5k	M-1529*** $I_{sat}=224A$	M-1530*** $I_{sat}=281A$	M-1531*** $I_{sat}=356A$	M-1532*** $I_{sat}=448A$	M-1533*** $I_{sat}=572A$	M-1534*** $I_{sat}=722A$	M-1535*** $I_{sat}=936A$	M-1536(O)*** $I_{sat}=1372A$
$\mu r \sim$ ca. 1k	M-1551(c+) $I_{sat}=112A$	M-662 $I_{sat}=140A$	M-663 $I_{sat}=180A$	M-1801 $I_{sat}=220A$	M-665 $I_{sat}=290A$	M-666 $I_{sat}=362A$	M-667 $I_{sat}=470A$	M-863 $I_{sat}=688A$
$\mu r \sim$ ca. 2k	M-1552(c+) $I_{sat}=56A$	M-672 $I_{sat}=70A$	M-673 $I_{sat}=90A$	M-674**/ M-1282(O) $I_{sat}=111A$	M-675 $I_{sat}=144A$	M-676 $I_{sat}=181A$	M-677/ M-790(O) $I_{sat}=234A$	M-873 (O) $I_{sat}=344A$
$\mu r \sim$ ca. 4k	M-1554(c+) $I_{sat}=28A$	M-682 $I_{sat}=35A$	M-683 $I_{sat}=45A$	M-684**/ M-1284(O) $I_{sat}=56A$	M-685 $I_{sat}=72A$	M-686/ M-986(O) $I_{sat}=90A$	M-687/ M-791(O) $I_{sat}=117A$	M-883(O) $I_{sat}=172A$
$\mu r \sim$ ca. 8k	M-1558(c+) $I_{sat}=14A$	M-452 $I_{sat}=18A$	M-453 $I_{sat}=22A$	M-954 $I_{sat}=28A$	M-455 $I_{sat}=36A$	M-456/ M-792(O) $I_{sat}=45A$	M-457/ M-751(O) $I_{sat}=58A$	M-582***/ M-703(O) $I_{sat}=86A$
$\mu r \sim$ ca. 30k	M-475(c+) $I_{sat}=4A$	M-112/ M-649(O) $I_{sat}=5A$	M-113/ M-283(O) $I_{sat}=6A$	M-114/ M-284(O) $I_{sat}=7A$	M-115 $I_{sat}=10A$	M-116/ M-302(O) $I_{sat}=12A$	M-117/ M-111(O) $I_{sat}=16A$	M-205/ M-248(O) $I_{sat}=23A$
$\mu r \sim$ ca. 60k	M-484(c+) $I_{sat}=2A$	M-612 $I_{sat}=2,5A$	M-613 $I_{sat}=3A$	M-614 M-897(O) $I_{sat}=4A$	M-615 $I_{sat}=5A$	M-616 $I_{sat}=6A$	M-617 $I_{sat}=8A$	M-618 $I_{sat}=11A$

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