

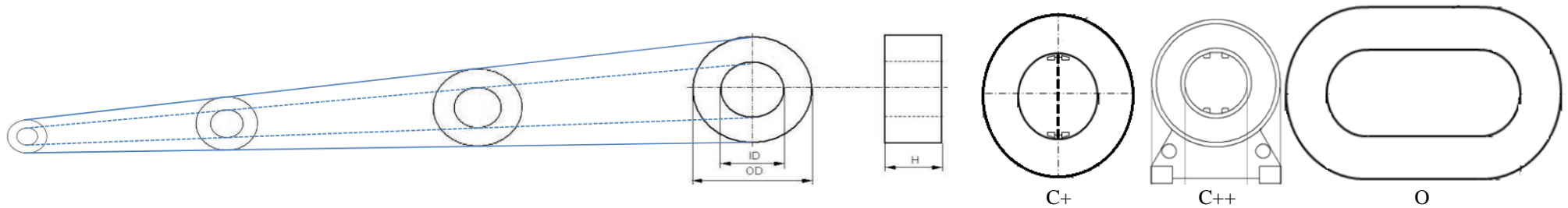
**NEW**

**NANOPERM® cased EMC core selection matrix**



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 1k 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 as the list below and offers them with different permeabilities. Our cased cores are encapsulated in a plastic housing with a max temperature about 130°C. Special high temperature materials are also available, see PB\_HT.

See [www.magnetec.de](http://www.magnetec.de) for further product information sheets, especially NANOPERM® curves



Nom. dim	16x10x6	20x12x8	25x20x10	25x16x10	30x20x10	40x32x15	40x25x15	45x30x20	50x40x20
ODxIDxH	18,2x7,8x8,4	22,3x10,3x10	15,1x17,5x7,0	28,2x13,2x12,6	32,7x17,8x12,6	43,1x28,8x17,4	44,5x21,4x19	48,5x25,5x24	53,4x36,6x23,5
$\mu r \sim$ ca.1k	M-1601	M-1201	M-1251	M-659	M-660	M-661	M-1401	M-1451	M-1501
$\mu r \sim$ ca.2k	M-956	M-1202	M-1252	M-669(c+)	M-670(c+)	M-671	M-1402	M-796	M-1502
$\mu r \sim$ ca. 4k	M-957	M-1204	M-1254	M-679(c+)	M-680(c+)	M-681	M-934	M-762	M-1504
$\mu r \sim$ ca. 8k	M-709	M-1208	M-1258	M-449(c+)	M-965/ M-450(c+)	M-451	M-831	M-1458	M-951
$\mu r \sim$ ca. 30k	M-104/ M-125(c++)	M-556	M-061(c+)	M-062(c+)	M-923	M-994	M-382	M-987	M-967/ M-049 (O)
$\mu r \sim$ ca. 90k	M-940/ M-017(c+)/ M-939(c++)	M-059	M-853(c+)	M-974(c+) M-845	M-102 M-016(c+)	M-981	M-920	M-765	M-592

C+: Plastic case with separator holder /C++: Plastic case with base / O: oval shaped versions

Only for information, no guaranteed values. For further information see datasheet.

## NANOPERM® cased EMC core selection matrix

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
cut	M-507	M-712	M-713/ M-639(O)	M-714/ M-640(O)	M-715	M-716	M-717/ M-771(O)	M-280/ M-648(O)
$\mu r \sim ca. 1k$	M-1551	M-662	M-663	M-1801	M-665	M-666	M-667	M-863
$\mu r \sim ca. 2k$	M-1552	M-672	M-673	M-674**	M-675	M-676	M-677/ M-790(O)	M-873 (O)
$\mu r \sim ca. 4k$	M-1554	M-682	M-683	M-684**	M-685	M-686/ M-986(O)	M-687/ M-791(O)	M-883(O)
$\mu r \sim ca. 8k$	M-1558	M-452	M-453	M-954	M-455	M-456/ M-792(O)	M-457/ M-751	M-582/ M-703(O)
$\mu r \sim ca. 30k$	M-475	M-112/ M-649(O)	M-113/ M-283(O)	M-114/ M-284(O)	M-115	M-116/ M-302(O)	M-117/ M-111(O)	M-205/ M-248(O)
$\mu r \sim ca. 60k$	M-484	M-612	M-613	M-614 M-897(O)	M-615	M-616	M-617	M-618

O: oval shaped versions

\*\* almost same size see datasheet

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The **NANOPERM® EMC cores** offers following benefits:

- **Special design for EMC chokes**
- **Inductive absorber –noise reduction specially though absorbtion instead of reflection**
- **Small sizes – big performance - highly efficient solutions**
- **Temperature stability – curie temperature well above competitive magnetic materials**
- **High EMC attenuation though high impedance over a wide frequency spectrum – up to GHz**
- **Higher saturation with 1,2T saturation inductance – well above these of EMC ferrites**

### MAGNETEC GmbH

Industriestr. 7, D-63505 Langenselbold, Germany

Fon: +49 6184 9202-0 / Fax: +49 6184 9202-20

E-Mail: [magnetec@magnetec.de](mailto:magnetec@magnetec.de)