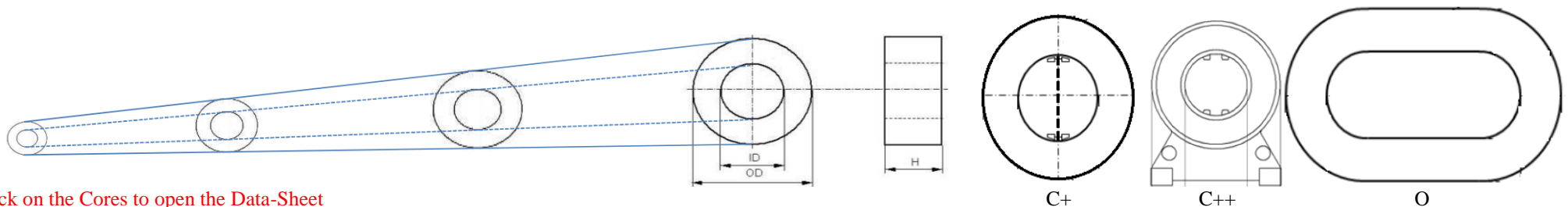


### NANOPERM® cased EMC core selection matrix



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



click on the Cores to open the Data-Sheet

Nom. dim	16x10x6	20x12x8	25x20x10	25x16x10	30x20x10	40x32x15	40x25x15	45x30x20	50x40x20
ODxIDxH	<u>18,2x7,8x8,4</u>	<u>22,3x10,3x10</u>	<u>27,8x17,5x12,6</u>	<u>28,2x13,2x12,6</u>	<u>32,7x17,8x12,6</u>	<u>43,1x28,8x17,4</u>	<u>44,5x21,4x19</u>	<u>48,5x25,5x24</u>	<u>53,4x36,6x23,5</u>
$\mu r \sim$ ca.1k	<u>M-1601</u>	<u>M-1201</u>	<u>M-1251</u>	<u>M-659</u>	<u>M-660</u>	<u>M-661</u>	<u>M-1401</u>	<u>M-1451</u>	<u>M-1501</u>
$\mu r \sim$ ca.2k	<u>M-956</u>	<u>M-1202</u>	<u>M-1252(c+)</u>	<u>M-669(c+)</u>	<u>M-670(c+)</u>	<u>M-671</u>	<u>M-1402</u>	<u>M-796</u>	<u>M-1502</u>
$\mu r \sim$ ca. 4k	<u>M-957</u>	<u>M-1204</u>	<u>M-1254(c+)</u>	<u>M-679(c+)</u>	<u>M-680(c+)</u>	<u>M-681</u>	<u>M-934</u>	<u>M-762</u>	<u>M-1504</u>
$\mu r \sim$ ca. 8k	<u>M-709</u>	<u>M-1208</u>	<u>M-1258(c+)</u>	<u>M-449(c+)</u>	<u>M-965/ M-450(c+)</u>	<u>M-451</u>	<u>M-831</u>	<u>M-1458</u>	<u>M-951</u>
$\mu r \sim$ ca. 30k	<u>M-104/ M-125(c++)</u>	<u>M-556</u>	<u>M-061(c+)</u>	<u>M-062(c+)</u>	<u>M-923</u>	<u>M-994</u>	<u>M-382</u>	<u>M-987</u>	<u>M-967/ M-049 (O)</u>
$\mu r \sim$ ca. 90k	<u>M-940/ M-017(c+)/ M-939(c++)</u>	<u>M-059</u>	<u>M-853(c+)</u>	<u>M-974(c+) M-845</u>	<u>M-102 M-016(c+)</u>	<u>M-981</u>	<u>M-920</u>	<u>M-765</u>	<u>M-1592</u>

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

O: oval shaped versions

\*\* almost same size see datasheet

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

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**

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