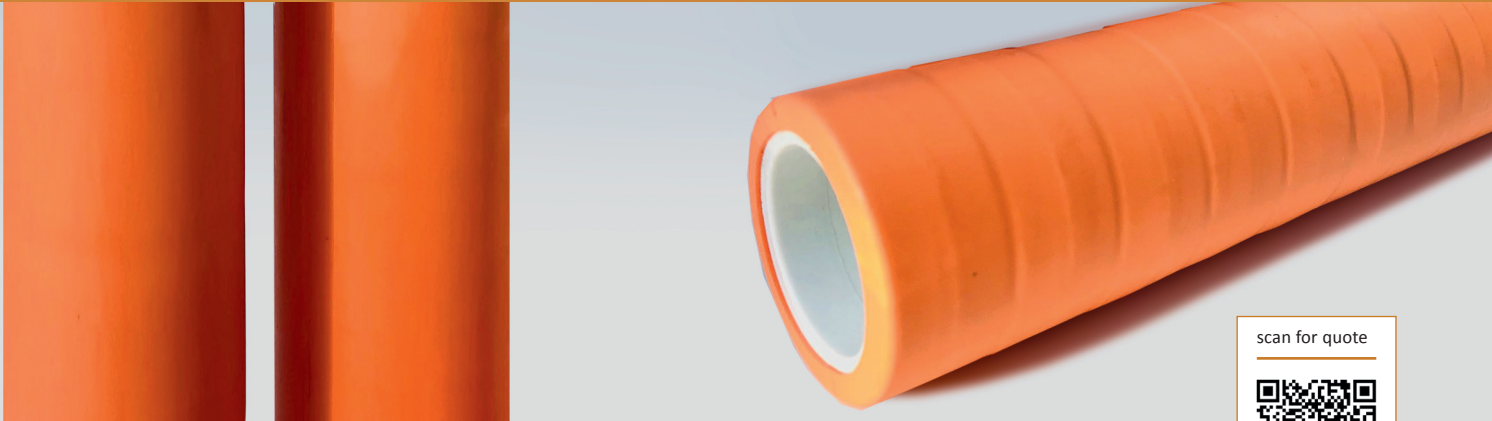


MRC Rolls Product Sheet



scan for quote



MRC Rolls for suppressing harmful interference currents, especially in use in radiated areas

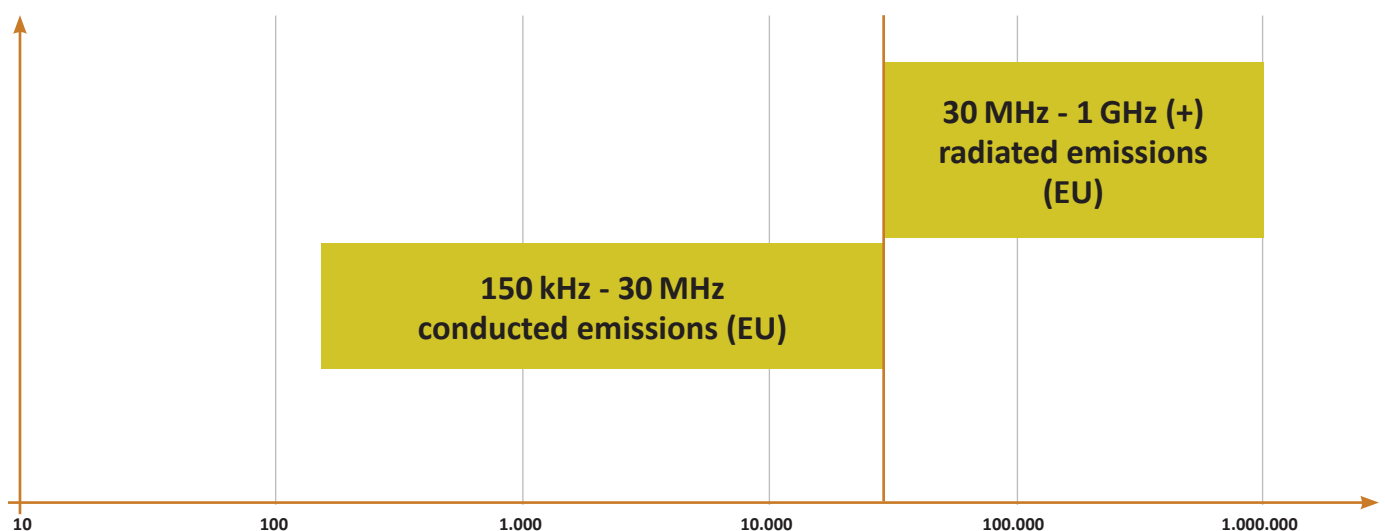
New devices must be checked in accordance with the EMC directive before they can be introduced in a country of the European Union.

Electromagnetic interferences with frequencies of up to about 30 MHz tend to be conducted via cables and current paths or to be coupled between cables via inductive / capacitive

mechanisms. Interference signals above 30 MHz, on the other hand, are emitted by metallic parts, components or cables that act as antennas.

In EU generally recognized frequency ranges for conducted and radiated interference:

Frequency Range (kHz)



These interferences can be suppressed or attenuated in various ways to restore compatibility with valid EMC directives (2014/30/EU).

Conducted Interferences

Power line interference and noise from switch mode power supplies are major sources of conducted EMC interference. AC power lines are the most important channel through which conducted electromagnetic interference can enter or exit equipment.

See also MRC Leaflets on Filter Cores, CMC and SoftProtector Cores:

<https://mrccomponents.com/en/products/material-core-materials/filter-cores>

<https://mrccomponents.com/en/products/material-core-materials/cmc-de>

<https://mrccomponents.com/en/products/material-core-materials/softprotector-cores>

Radiated Interferences

Shielding prevents emitted interference signals from entering or leaving a housing. Developers can use various shielding mechanisms.

If EMC problems are only discovered later in a running project (unshielded cables have been chosen for reasons of cost or selected shielding approaches prove to be impractical) a quick and convenient solution of absorbing radiated interference is required.

MRC Components GmbH & Co. KG offers nanocrystalline rolls which suppress HF interferences and contribute to replace the expensive shielding of motor cables, easy to retrofit, to keep the required EMC limits. These rolls can be used inside housings as well as outside. They are simply attached over L1 + L2 + L3 lines (without N and PE) and absorb the harmful RF noise before it is emitted. This releases a small amount of heat that is simply dissipated to the environment. These absorbers can currently be used in engines up to approx. 1 MW.

List for the Rolls (LF)

Power range (kW)	Roll Ref.	nominal dimensions	max. cased dimensions	Lfe (cm)	Afe (cm ²)	ca. Isat (A _{pk})
7 - 22	MRC10821	30x20x100	35 x 15 x 140	7,8	3,9	9
30 - 45	MRC10822	50x40x200	58 x 35 x 240	14,13	7,8	16
55 - 90	MRC10823	80x60x300	88 x 55 x 350	21,9	23,4	26
110 - 800	MRC10824	160x130x300	170 x 122 x 360	45,5	35,1	54

The information is non-binding and can be adjusted without prior information. No liability is assumed.

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.