

Data sheet article FE-R-100-60-20

Technical data and application safety

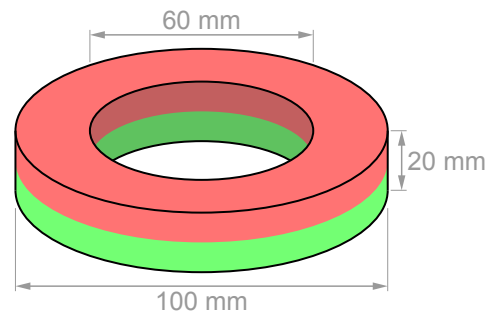
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1. Technical information

Article ID	FE-R-100-60-20
Material	Ferrite
Shape	Ring
Outer diameter	100 mm(+/- 2,0 mm)
Inner diameter	60 mm(+/- 1,2 mm)
Height	20 mm(+/- 0,1 mm)
Direction of magnetisation	axial (parallel to height)
Coating	no coating
Manufacturing method	sintered
Magnetisation strength	Y35 approx. 16 kg (approx. 157 N)
Max. working temperature	250°C
Weight	487,5748 g
Curie temperature	450 °C
Residual magnetism Br	4000-4100 G, 0.40-0.41 T
Coercive field strength bHc	2.20-2.45 kOe, 175-195 kA/m
Coercive field strength iHc	2.26-2.51 kOe, 180-200 kA/m
Energy product (BxH)max	3.8-4.0 MGOe, 30.0-32.0 kJ/m ³



Pollutant-free according to RoHS Directive 2011/65/EU.


2. Safety tips


<p>Warning</p> 	<p>Contusions</p> <p>Big magnets have a very strong attractive force. Unsafe handling could cause jamming of fingers or skin in between magnets. This may lead to contusions and bruises.</p> <p>Wear heavy protective gloves when handling larger magnets.</p>
<p>Warning</p> 	<p>Pacemaker</p> <p>Magnets could affect the functioning of pacemakers and implanted heart defibrillators.</p> <ul style="list-style-type: none"> • A pacemaker could switch into test mode and cause illness. • A heart defibrillator may stop working. • If you wear these devices keep sufficient distance to magnets: www.supermagnete.de/eng/faq/distance • Warn others who wear these devices from getting too close to magnets.


Warning	Heavy objects
	<p>Too heavy loads, symptoms of fatigue as well as material defect could cause a magnet or magnetic hook to loosen from the surface that it was attached to. Falling objects could lead to serious injuries.</p> <ul style="list-style-type: none"> • The indicated adhesive force applies only to ideal conditions. Allow for a high safety cushion. • Don't use magnets in places where people could sustain injuries in case of material failure.


3. Handling and storing

Caution	Magnetic field
	<p>Magnets produce a far-reaching, strong magnetic field. They could damage TVs and laptops, computer hard drives, credit and ATM cards, data storage media, mechanical watches, hearing aids and speakers.</p> <ul style="list-style-type: none"> • Keep magnets away from devices and objects that could be damaged by strong magnetic fields. • Please refer to our table of recommended distances: www.supermagnete.de/eng/faq/distance


Caution	Nickel allergy
	<p>Many of our magnets contain nickel, also those without nickel coating.</p> <ul style="list-style-type: none"> • Some people have an allergic reaction when they come into contact with nickel. • Nickel allergies could develop from perpetual contact with nickel-plated objects. • Avoid perpetual skin contact with magnets. • Avoid contact with magnets if you already have a nickel allergy.


Notice	Influence on people
	<p>According to the current level of knowledge, magnetic fields of permanent magnets do not have a measurable positive or negative influence on people. It is unlikely that permanent magnets constitute a health risk, but it cannot be ruled out entirely.</p> <ul style="list-style-type: none"> • For your own safety, avoid constant contact with magnets. • Store large magnets at least one metre away from your body.

Notice	Temperature resistance
	<p>Ferrite magnets can be used at temperatures between -40 °C and 250 °C. At lower and higher temperatures they lose part of their adhesive force permanently.</p> <p>Don't use ferrite magnets in places where they are exposed to temperatures below -40 °C or above 250 °C.</p>

Notice	Mechanical treatment
	<p>Ferrite magnets are brittle. When drilling or sawing a magnet with improper tools, the magnet may break.</p> <p>Stay away from mechanical treatment of magnets if you do not possess the necessary equipment and experience.</p>

4. Transportation tips

Caution	Airfreight
	<p>Magnetic fields of improperly packaged magnets could influence airplane navigation devices. In the worst case it could lead to an accident.</p> <ul style="list-style-type: none"> • Airfreight magnets only in packaging with sufficient magnetic shielding. • Please refer to the respective regulations: www.supermagnete.de/eng/faq/airfreight

<p>Caution</p> 	<p>Postage</p> <p>Magnetic fields of improperly packaged magnets could cause disturbances in sorting machines and damage fragile goods in other packages.</p> <ul style="list-style-type: none">• Please refer to our shipping tips: www.supermagnete.de/eng/faq/shipping• Use a large box and place the magnet in the middle surrounded by lots of padding material.• Arrange magnets in a package in a way that the magnetic fields neutralise each other.• If necessary, use sheet iron to shield the magnetic field.• There are stricter rules for airfreight: Refer to the warning notice "Airfreight".
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For more information about magnets please review
www.supermagnete.de/faq.php.

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