

# C-REN

## Compressed NdFeB

### MATERIAL TYPE

Plastic

### SURFACE PROTECTION

Epoxy / Resin

### ORIENTATION

Isotropic Material

### MAGNETIZATION

Single Pole / Multiple Poles (Halbach  
Sinusoidal, Skewed, Trapezoidal, Discrete)

### TEMPERATURE BEHAVIOR

Br TEMPERATURE COEFFICIENT	% / °C	-0,1
HcJ TEMPERATURE COEFFICIENT	% / °C	-0,4

\*The temperature coefficients are nominal reference values only. They can vary for different temperatures and don't need to be linear.  
\*\*The maximum operating temperature is depending on the magnet shape, size and on the specific application.

### PHYSICAL AND MECHANICAL TYPICAL PROPERTIES

CURIE TEMPERATURE	°C	310
RELATIVE PERMEABILITY	( $\mu_r$ )	1,20
SATURATION FIELD	kOe	> 39
ELECTRICAL RESISTIVITY	$\Omega m$	0,12
FLEXURAL STRENGTH	N / mm <sup>2</sup>	0,2
COMPRESSIVE STRENGTH	N / mm <sup>2</sup>	0,2
HARDNESS	Sh D	90 - 95



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GRADES	Br		HcB		HcJ		BH max		Max. Working Temp.**
	G	T	Oe	kA/m	Oe	kA/m	MGOe	kJ/m <sup>3</sup>	°C
<b>C-REN 2</b>	3.000 - 4.000	0,30 - 0,40	2.000 - 3.000	160 - 240	6.000 - 8.000	480 - 640	2,0 - 3,0	16 - 24	≤120
<b>C-REN 4</b>	4.000 - 5.000	0,40 - 0,50	3.000 - 4.000	240 - 320	7.000 - 9.000	560 - 720	4,0 - 5,5	32 - 44	≤120
<b>C-REN 6</b>	5.000 - 6.000	0,50 - 0,60	4.000 - 5.000	320 - 400	6.000 - 8.000	480 - 640	6,0 - 7,5	48 - 60	≤120
<b>C-REN 8</b>	6.000 - 6.800	0,60 - 0,68	4.500 - 5.500	360 - 440	8.000 - 10.000	640 - 800	8,0 - 9,0	64 - 72	≤150
<b>C-REN 8H</b>	6.000 - 6.500	0,60 - 0,65	5.000 - 6.000	400 - 480	14.000 - 16.000	1.120 - 1.280	7,5 - 8,5	60 - 68	≤160
<b>C-REN 8L</b>	6.500 - 6.800	0,65 - 0,68	5.000 - 6.000	400 - 480	11.000 - 14.000	900 - 1.120	8,0 - 9,0	64 - 72	≤160
<b>C-REN 9</b>	6.000 - 6.800	0,60 - 0,68	5.000 - 6.000	400 - 480	8.000 - 10.000	640 - 800	8,5 - 9,0	68 - 72	≤150
<b>C-REN 10</b>	6.800 - 7.300	0,68 - 0,73	5.000 - 6.000	400 - 480	8.000 - 10.000	640 - 800	9,5 - 10,5	76 - 84	≤150
<b>C-REN 12</b>	7.100 - 7.500	0,71 - 0,75	5.500 - 6.500	440 - 520	9.000 - 10.000	720 - 800	10,5 - 12,0	84 - 96	≤150
<b>C-REN 12L</b>	7.200 - 7.600	0,72 - 0,76	5.000 - 6.000	400 - 480	6.000 - 8.000	480 - 640	10,5 - 12,0	84 - 96	≤140