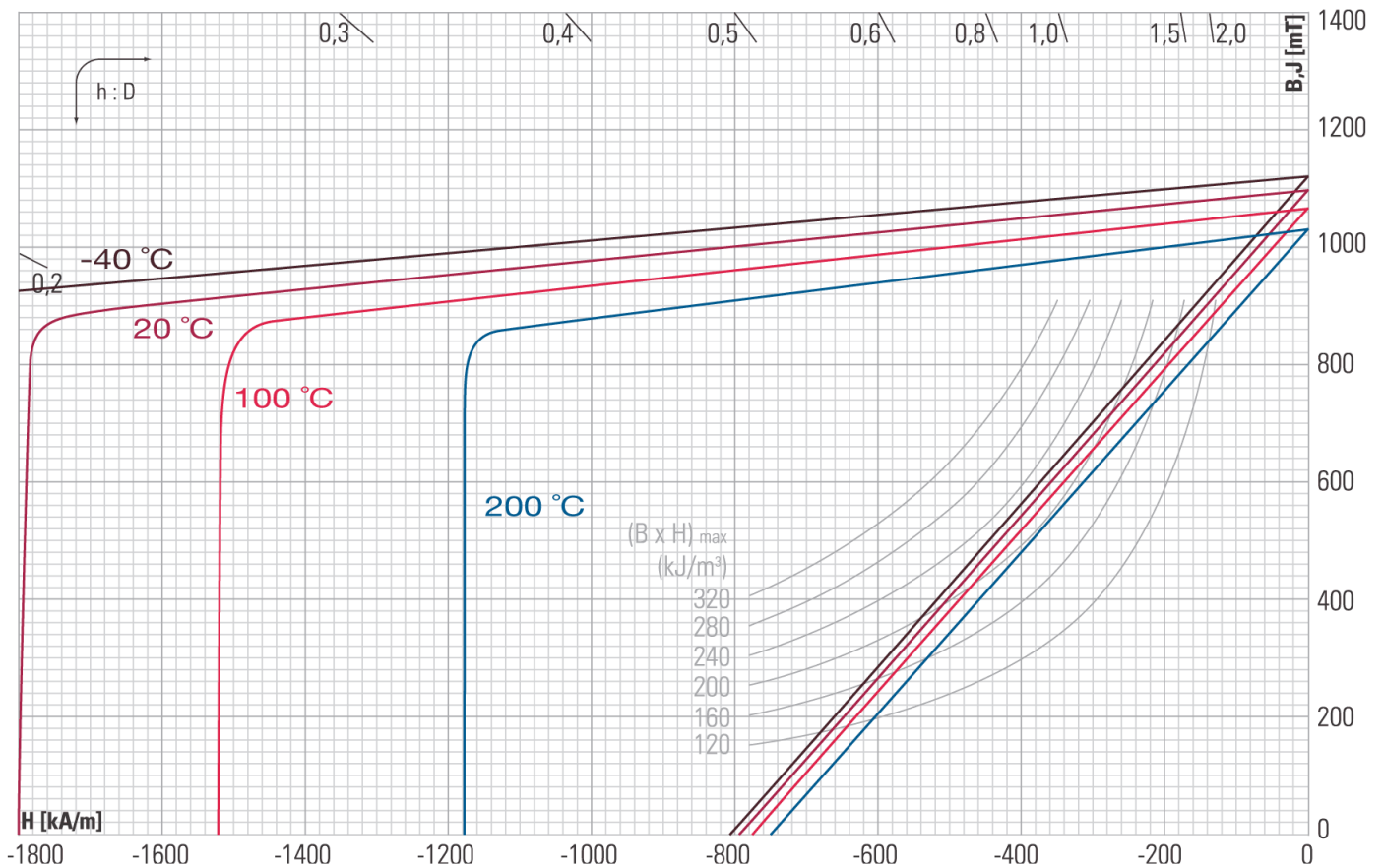


RARE EARTH MAGNETS

Sm₂Co₁₇ 195/160 h

anisotropic



MATERIAL DATA

Magnetic values as in DIN IEC 60404-8-1

Energy product ($B \cdot H$) _{max.}	typ.	kJ/m ³	220
	min.	kJ/m ³	195
Remanence B_r	typ.	mT	1100
	min.	mT	1040
revers. Temp. coeff. of B_r	approx. ¹⁾	%/K	-0,032
Coercivity H_C	H_{CB} typ.	kA/m	800
	H_{CB} min.	kA/m	720
	H_{CJ} typ.	kA/m	1800
	H_{CJ} min.	kA/m	1600
revers. Temp. coeff. of H_{CJ}	approx.	%/K	-0,19
relative permanent permeability $\mu_{rec.}$	approx.		1,04
Curie temperature	approx.	°C	800
max. operating temperature	approx.	°C	350
Magnetising field strength	min.	kA/m	4300

Mechanical values

Density	approx.	g/cm ³	8,3
Vickers hardness		HV	600
Elasticity modulus	approx.	10 ³ N/mm ²	150
Compressive strength	approx.	N/mm ²	800
Flexural strength	approx.	N/mm ²	150
Expansion coefficient	p.p.d. ²⁾	approx. 10 ⁻⁶ /K	11
	i.p.d. ³⁾		8
spec. elec. resistance	approx.	10 ⁻⁶ Ωm	0,75-0,9
spec. heat capacity	approx.	J/(kg•K)	340
Thermal conductivity	approx.	W/mK	10-13

¹⁾ In the temperature range from 20 °C to 200 °C.

²⁾ p.p.d. = perpendicular to preferred direction

³⁾ i.p.d. = in preferred direction

All values indicated were determined on standard samples following IEC 60404-5. Matrix pressed magnets of various shapes and sizes may differ in their magnetic ratings.