

Nd-Fe-B Bonded Magnets(Compress Molded Type)

CM series

Issue date: March 2008

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 - Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
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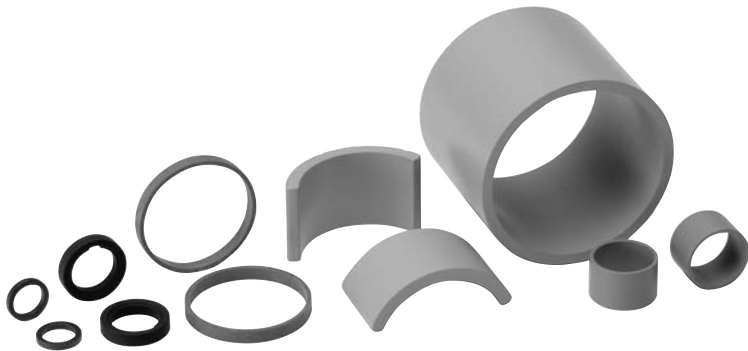
Nd-Fe-B(NEODYMIUM-IRON-BORON) BONDED MAGNETS

Compress Molded Type

Plastic Bonded Nd-Fe-B, CM Series 1

Demagnetization Curves/Magnetic Characteristics

Standard Material	CM8B	2
Low-cost Materials	CM8BL	3
	CM8BLH.....	4
High-peformance Materials	CM11SH.....	5
	CM11UH.....	6



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Nd-Fe-B Bonded Magnets(Compress Molded Type) CM Series

This isotropic bonded magnet is made by compounding and compress-molding Nd-Fe-B magnetic material (MQ-P was used) with an epoxy binder.

FEATURES

- Material mixing and kneading technologies
Product strength has been improved through proprietary technologies(20% improvement over competitors' products).
- Molding technologies
Thin products can be molded and we support high-volume production for products as thin as 0.3mm(outer diameter of approximate 3 to 6mm).
- Surface treatment technologies
We apply a priming treatment prior to the application of coatings, ensuring excellent reliability.
- Overall technologies
High performance owing to high-density capabilities.

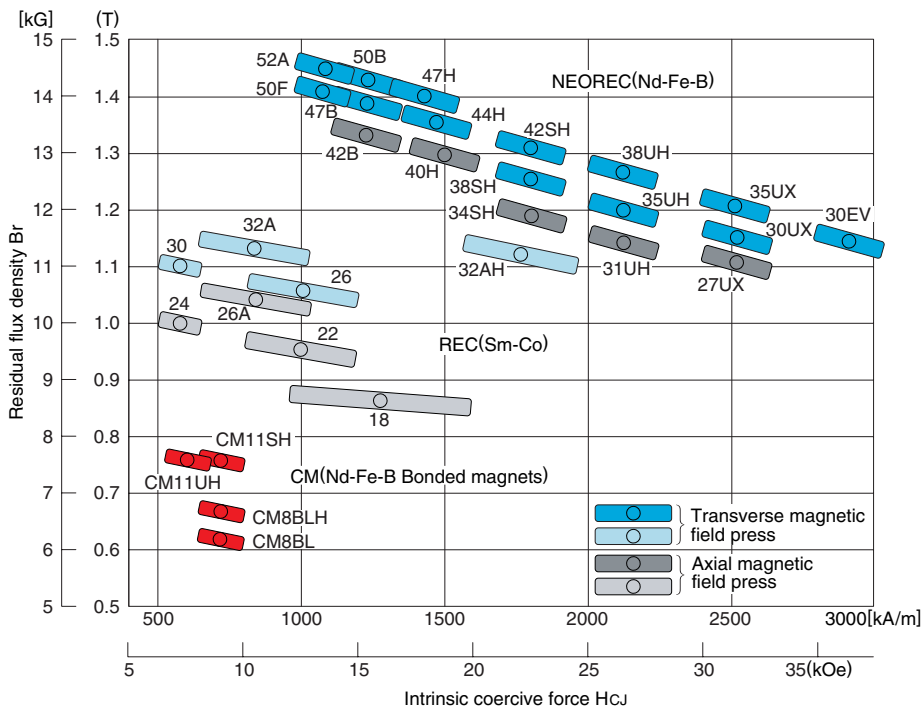
Material	Features	Recommended applications
CM8BL(Low-cost)	These materials contribute to cost reduction.	CD-ROM, DVD etc. Power tool related
CM8BLH(Low-cost)	These materials contribute to cost reduction. They are largely compatible with CM8B (standard materials) in terms of their characteristics.	CD-ROM, DVD etc.
CM11SH(High-performance)	These materials are suited for delivering good characteristics. They are suited for realizing good characteristics in thin configurations.	Vibrating motors and other applications.
CM11UH(High-performance)	These materials are suited for delivering good characteristics. Suited for multi-polar applications in spindle and small stepping motors.	Spindle motor, small stepping motor, etc.

MAGNETIC CHARACTERISTICS

SI Units

Material		CM8B	CM8BL	CM8BLH	CM11SH	CM11UH
Residual flux density	Br [mT]	665±30	620±30	650±30	740±30	750±30
Coercive force	HcB [kA/m]	398±40	398±40	414±40	478±40	438±40
Intrinsic coercive force	HcJ [kA/m]	717±80	717±80	717±80	717±80	597±80
Maximum energy product	(BH)max [kJ/m ³]	71.7±8.0	63.7±8.0	69.3±8.0	87.6±8.0	87.6±8.0

Br/HcJ CHARACTERISTICS DISTRIBUTION

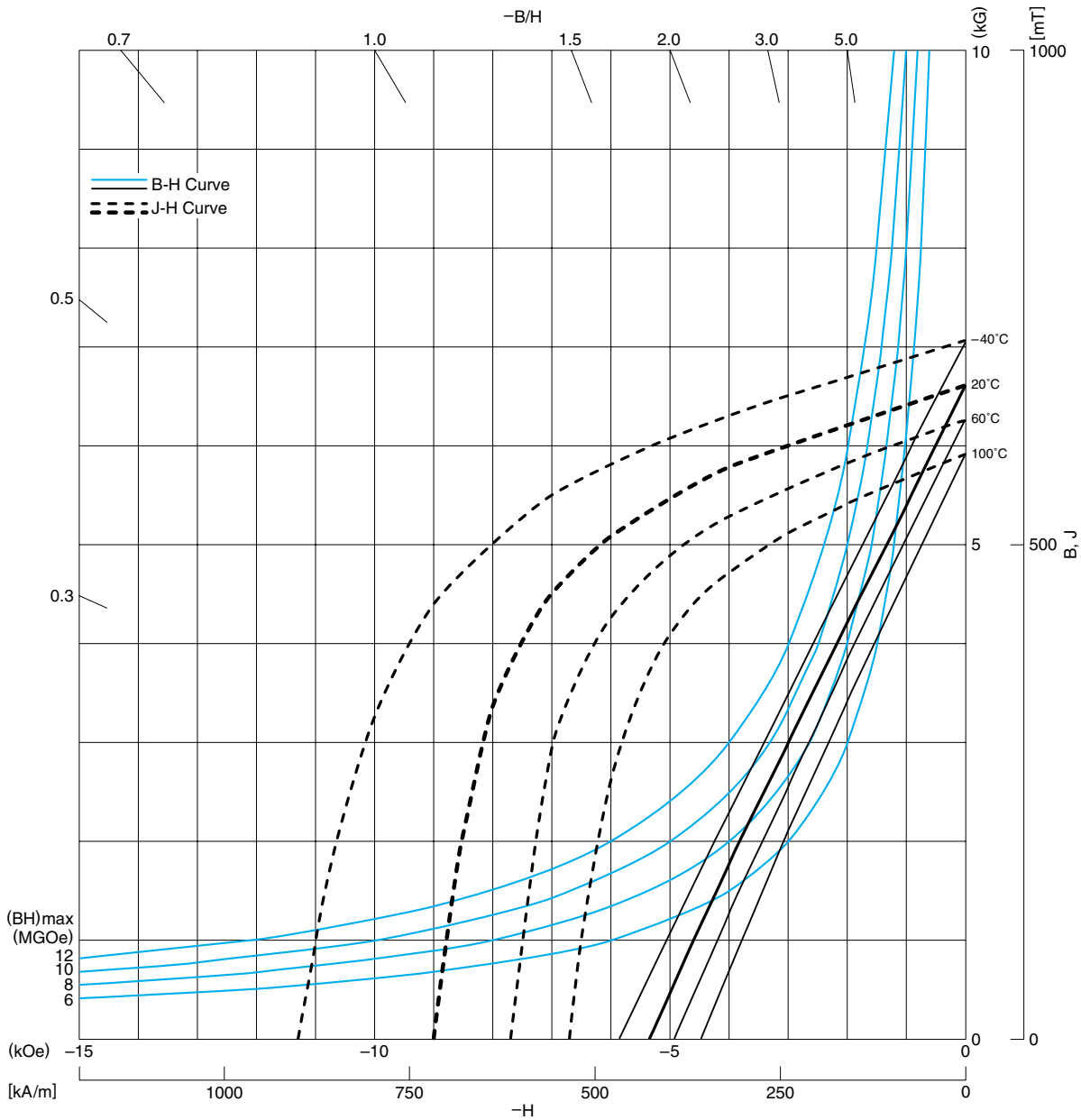


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DEMAGNETIZATION CURVES/MAGNETIC CHARACTERISTICS

STANDARD MATERIAL, CM8B DEMAGNETIZATION CURVE

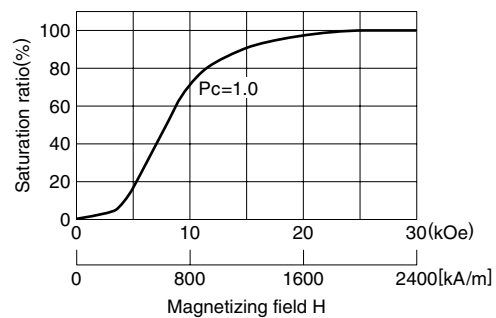


MAGNETIC CHARACTERISTICS

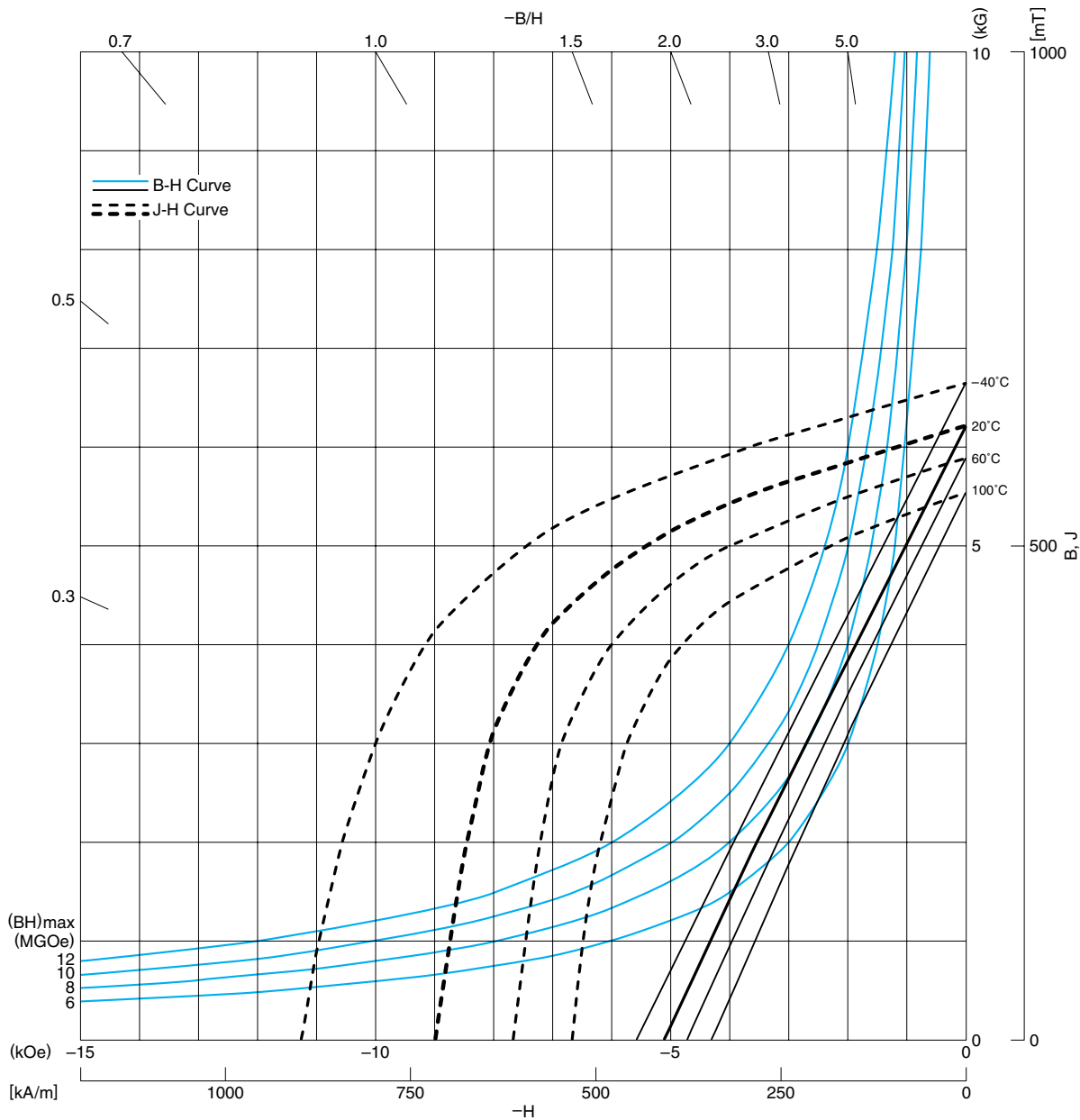
Residual flux density	[mT]	665±30
Br	(kG)	6.65±0.3
Coercive force	[kA/m]	398±40
H _{CB}	(kOe)	5.0±0.5
Intrinsic coercive force	[kA/m]	717±80
H _{CJ}	(kOe)	9.0±1.0
Maximum energy product	[kJ/m ³]	71.7±8.0
(BH) _{max}	(MGOe)	9.0±1.0

- []: in the unit of SI
- (): in the unit of CGS

MAGNETIZATION CHARACTERISTICS



LOW-COST MATERIAL, CM8BL DEMAGNETIZATION CURVE

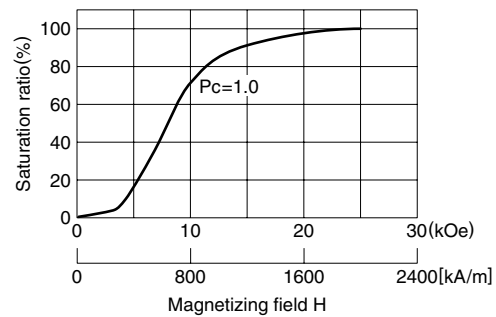


MAGNETIC CHARACTERISTICS

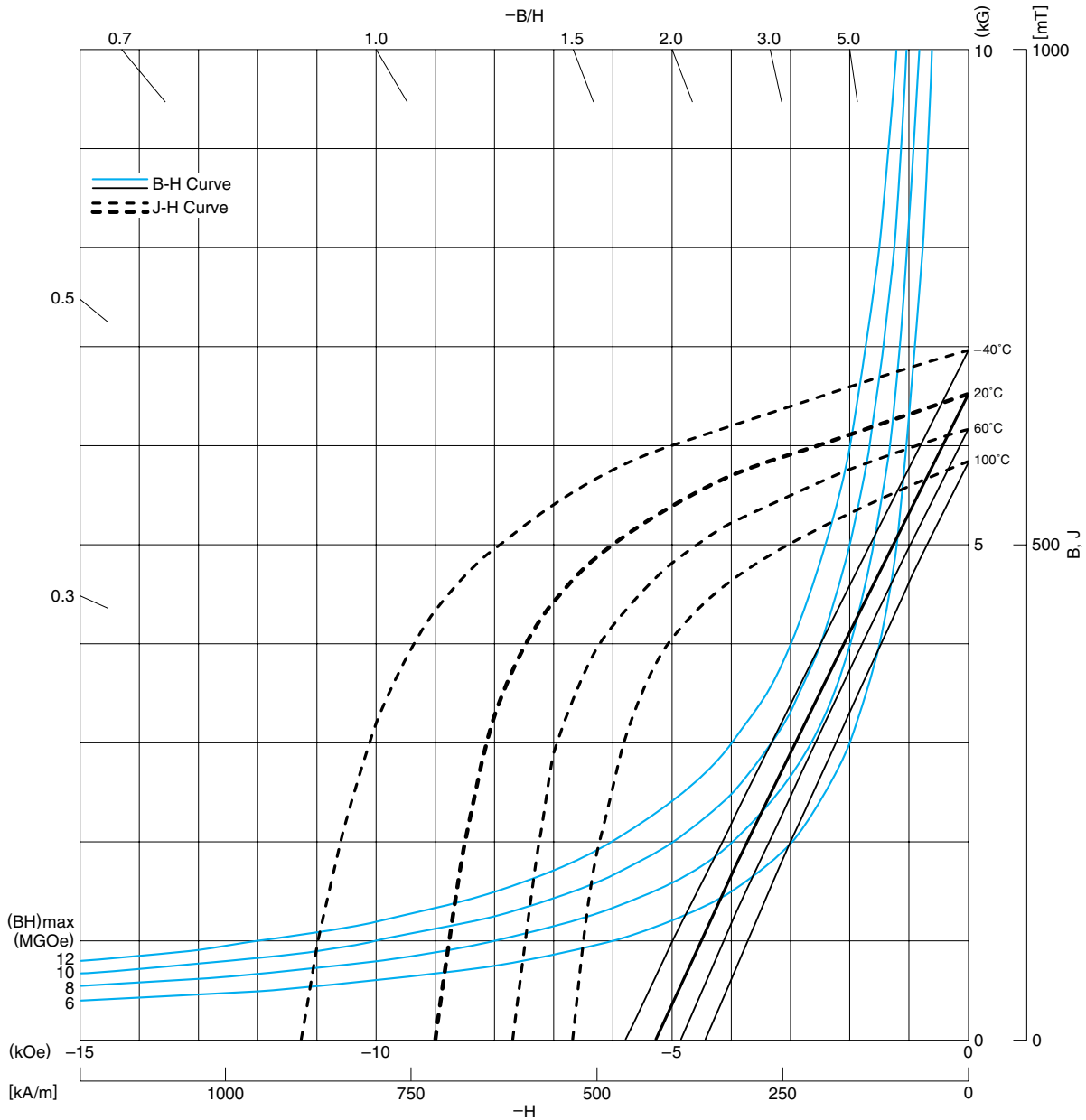
Residual flux density	[mT]	620±30
Br	(kG)	6.20±0.3
Coercive force	[kA/m]	398±40
H _{CB}	(kOe)	5.0±0.5
Intrinsic coercive force	[kA/m]	717±80
H _{cJ}	(kOe)	9.0±1.0
Maximum energy product	[kJ/m ³]	63.7±8.0
(BH) _{max}	(MGOe)	8.0±1.0

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MAGNETIZATION CHARACTERISTICS



LOW-COST MATERIAL, CM8BLH DEMAGNETIZATION CURVE

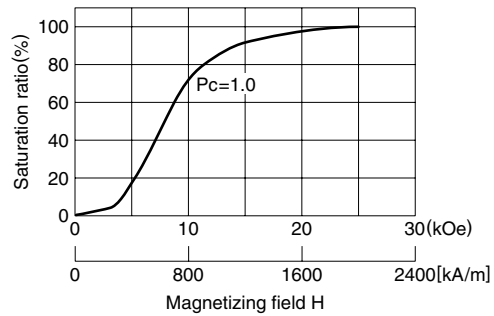


MAGNETIC CHARACTERISTICS

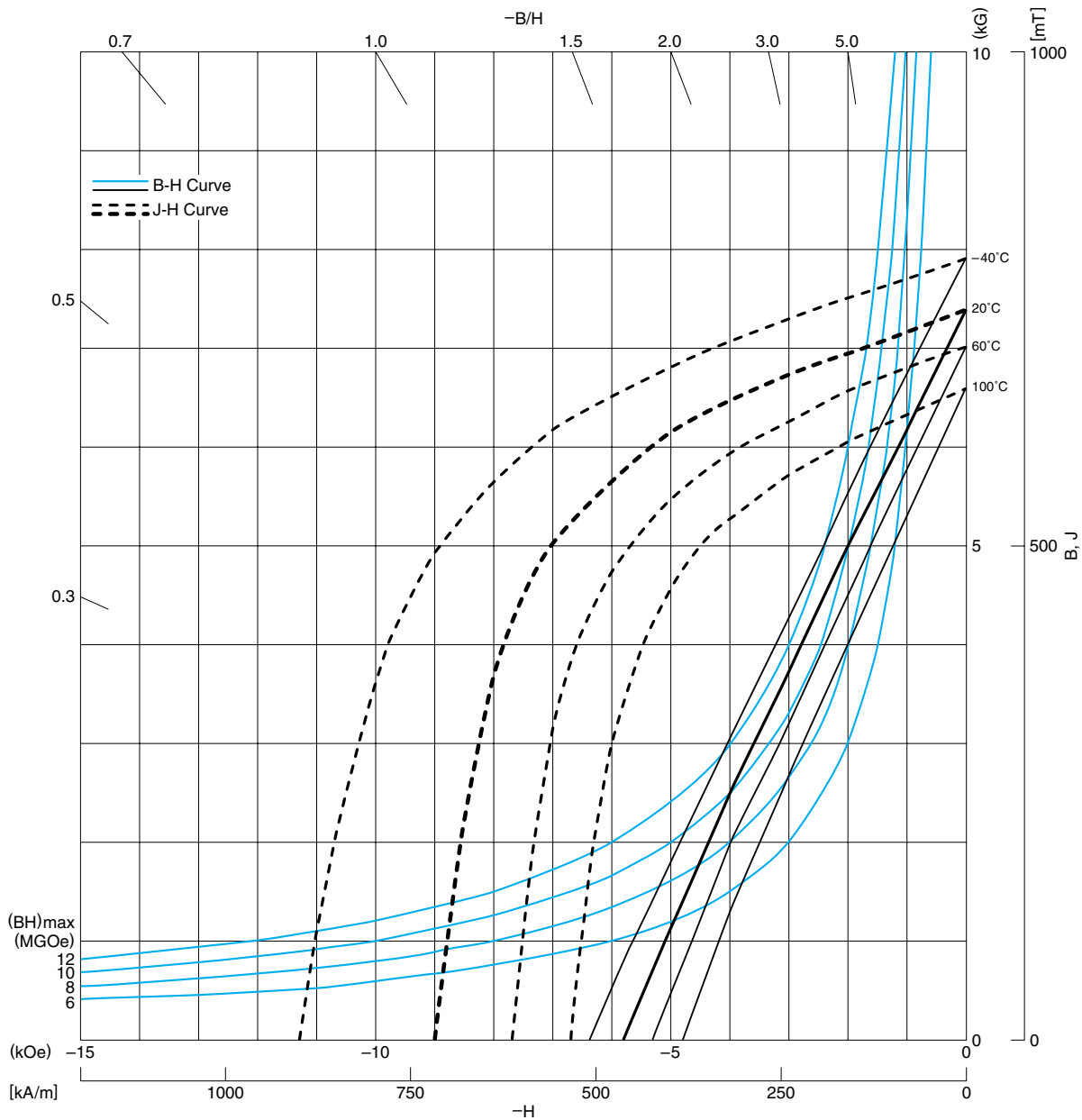
Residual flux density	[mT]	650±30
Br	(kG)	6.50±0.3
Coercive force	[kA/m]	414±40
H _{CB}	(kOe)	5.2±0.5
Intrinsic coercive force	[kA/m]	717±80
H _{cJ}	(kOe)	9.0±1.0
Maximum energy product	[kJ/m ³]	69.3±8.0
(BH) _{max}	(MGOe)	8.7±1.0

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MAGNETIZATION CHARACTERISTICS



HIGH-PERFORMANCE MATERIAL, CM11SH DEMAGNETIZATION CURVE

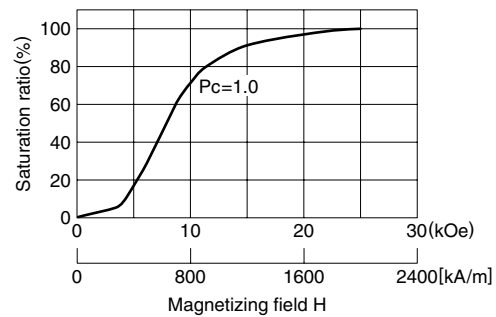


MAGNETIC CHARACTERISTICS

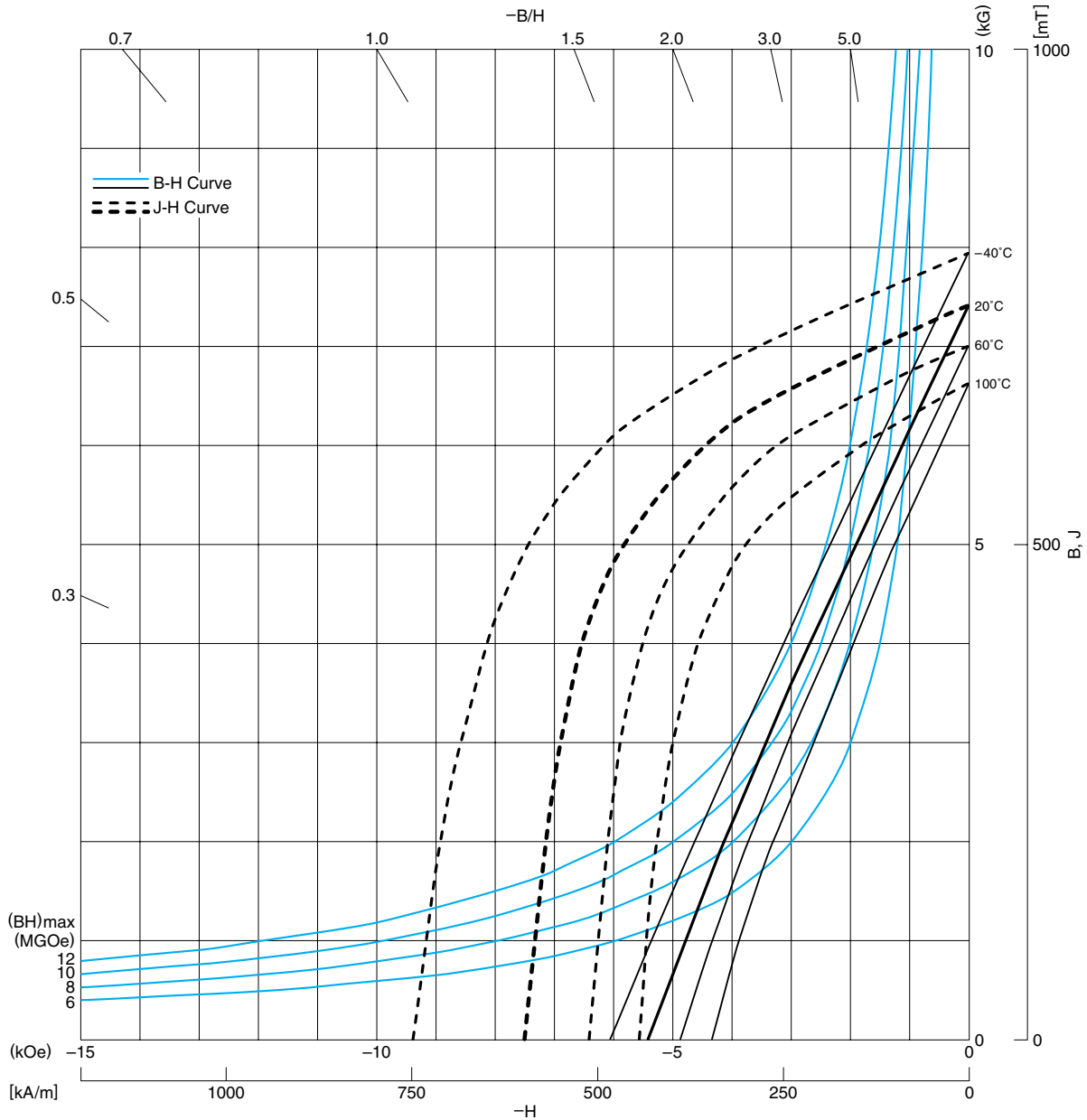
Residual flux density	[mT]	740±30
Br	(kG)	7.40±0.3
Coercive force	[kA/m]	478±40
H _{CB}	(kOe)	6.0±0.5
Intrinsic coercive force	[kA/m]	717±80
H _{cJ}	(kOe)	9.0±1.0
Maximum energy product	[kJ/m ³]	87.6±8.0
(BH) _{max}	(MGOe)	11.0±1.0

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MAGNETIZATION CHARACTERISTICS



HIGH-PERFORMANCE MATERIAL, CM11UH DEMAGNETIZATION CURVE

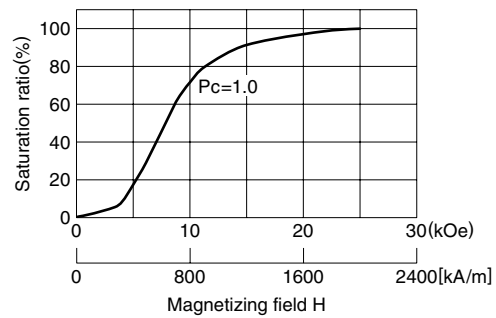


MAGNETIC CHARACTERISTICS

Residual flux density	[mT]	750±30
Br	(kG)	7.50±0.3
Coercive force	[kA/m]	438±40
H _{cb}	(kOe)	5.5±0.5
Intrinsic coercive force	[kA/m]	597±80
H _{cj}	(kOe)	7.5±1.0
Maximum energy product	[kJ/m³]	87.6±8.0
(BH) _{max}	(MGOe)	11.0±1.0

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