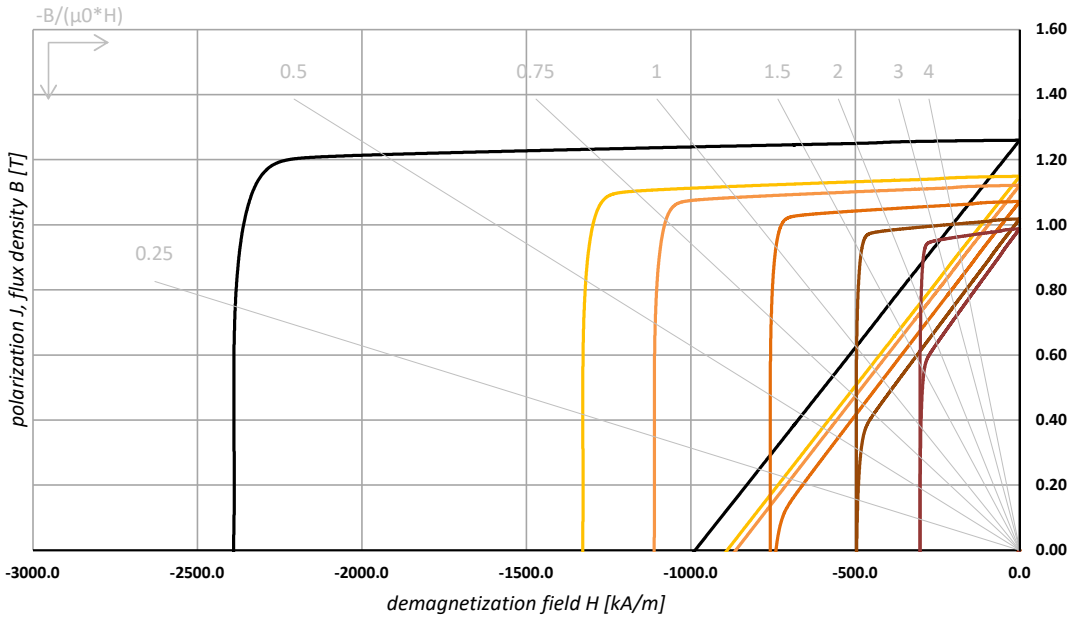
BOMATEC
MORE THAN JUST MAGNETS

# BMN-38EH/S (GBD)

NdFeB sintered, corrosion stable




| Temperature in [°C]: | **20.0** | 100.0 | 120.0 | 150.0 | 180.0 | 200.0 |
|---|---|---|---|---|---|---|

| **magnetic properties** | | | | | |
|---|---|---|---|---|---|
| Remanence 20°C | Br min | 1.220 | T | 12.2 | kG |
| | Br nom | 1.260 | T | 12.6 | kG |
| Coercitivity 20°C | HcB min | 899 | kA/m | 11.3 | kOe |
| | HcB nom | 969 | kA/m | 12.2 | kOe |
| Intrinsic Coercitivity 20°C | HcJ min | 2387 | kA/m | 30.0 | kOe |
| | HcJ nom | 2390 | kA/m | 30.0 | kOe |
| Maximum Energy Product 20°C | BH max, min | 279 | $kJ/m^3$ | 35.1 | MGOe |
| | BH max, nom | 303 | $kJ/m^3$ | 38.1 | MGOe |
| Reversible Temperature Coefficient [1] | α Br nom | -0.100 ~ -0.120 | %/°C | | |
| | β HcJ nom | -0.47 ~ -0.62 | %/°C | | |

| **material properties (typical values)** | | | | | |
|---|---|---|---|---|---|
| Max. Operating Temperature [2] | T max | 200 | °C | | |
| Density | ρ | 7.55 | $g/cm^3$ | | |
| Permeability 20°C | μr | 1.05 | | | |
| Vickers Hardness | | 500 - 600 | HV | | |
| Modulus of Elasticity | E | 150 - 200 | $kN/mm^2$ | | |
| Compressive Strength | | 1000 - 1100 | $N/mm^2$ | | |
| Flexural Strength | | 250 | $N/mm^2$ | | |
| Expansion Coefficient | | - | $10^{-6}/K$ | | |
| Expansion Coefficient in direction of anisotropy | ⊥ | -3 - 0 | $10^{-6}/K$ | | |
| | // | 4 - 9 | $10^{-6}/K$ | | |
| Specific Electric Resistance | ρel | 1.2 - 1.6 | μΩ·m | | |
| Specific Heat Capacity | c | 440 | J/(kg·K) | | |
| Thermal Conductivity | λ | 8.0 - 10.0 | W/m·K | | |

1) The shown temperature coefficients are nominal reference values only . They can vary for different temperatures and don't need to be linear.

2) The maximum operating temperature is depending on the magnet shape, size and on the specific application.

Note: The above plotted graphs are idealized and represent theoretical values of the material. Shown are curves according nominal values based on uncoated material samples according to IEC 60404-5. Material and magnetic data represent typical data that may vary due to product shape, size and coating. Please contact Bomatec regarding specific requirements for your application.

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