

## NdFeB – gesintert / NdFeB – sintered

Maximieren Sie Effizienz und Leistung Ihrer Projekte mit **gesinterten NdFeB-Magneten**, den stärksten Selten-Erd-Magneten. Ihre hohe Energiedichte ermöglicht eine deutliche Leistungssteigerung und kompaktere Bauweisen im Vergleich zu herkömmlichen Materialien. Dank ihrer ausgezeichneten magnetischen Eigenschaften erreichen diese Magnete eine hohe Sättigungsmagnetisierung und magnetische Feldstärke, was sie für eine Vielzahl neuer Anwendungen ideal macht.

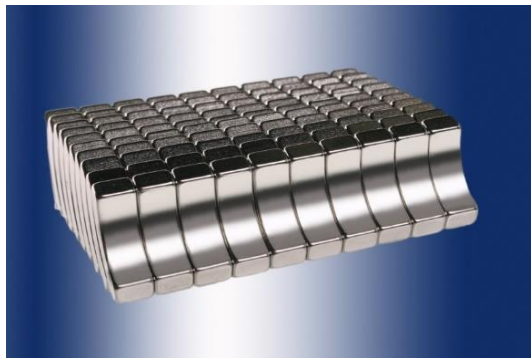
Häufigste Anwendungen gesinterner NdFeB-Magnete sind:

- Motoren & Generatoren: Schrittmotoren, Servomotoren & DC-Maschinen, Linearmotor
- Elektroakustik: Lautsprecher, Kopfhörer, Mikrofone
- Sensorik, Messtechnik
- Magnetische Kupplungen
- Magnetische Separation
- Magnetische Hebesysteme und Haltesysteme
- MRI-Equipment, Festplattenlaufwerke

*Maximize the efficiency and performance of your projects with **sintered NdFeB magnets**, the strongest rare-earth magnets. Their high energy density enables a significant increase in performance and more compact designs compared to conventional materials. Thanks to their excellent magnetic properties, these magnets achieve high saturation magnetization and magnetic field strength, making them ideal for a wide range of new applications.*

*Most frequent applications of sintered NdFeB magnets are:*

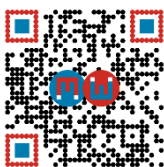
- *Engines & generators: stepping motors, servo actuators & dc machines, linear motor*
- *Electroacoustics: loudspeaker, headphone, microphones*
- *Sensor technology, measuring technique*
- *Magnetic clutches*
- *Magnetic separation*
- *Magnetic holding systems and fixing systems*
- *MRI equipment, hard disk drive assemblies*



**NdFeB – gesintert /**  
**NdFeB – sintered**

**Magnetische Eigenschaften von gesinterten NdFeB Magneten / magnetic properties of sintered NdFeB magnets \***

| Werkstoff / grade |                   |                   | Magnetische Eigenschaften / magnetic properties |            |            |                                |              |              |                 |     |
|-------------------|-------------------|-------------------|---|------------|------------|--------------------------------|--------------|--------------|-----------------|-----|
| normal            | Dy less<br>D Type | Dy free<br>F Type | Remanenz  | Koerzitiv- | Koerzitiv- | Energie Produkt                | Temp.-Koeff. | Temp.-Koeff. | Einsatztemp.    |     |
|                   |                   |                   | remanence                                       | Feldstärke | Feldstärke | energy density                 | temp.-coeff. | temp.-coeff. | operation temp. |     |
|                   |                   |                   | Br [mT]   | Hcb [kA/m] | Hcj [kA/m] | (BH) max. [kJ/m <sup>3</sup> ] | (Br) [%/K]   | (Hcj) [%/K]  | Tmax. [°C]      |     |
| N                 | N35               | N35 TF            | 1170-1210                                       | ≥868       | ≥955       | 263-287                        | -0,11        | -0,6         | 80              |     |
|                   | N38               | N38 TF            | 1210-1250                                       | ≥899       | ≥955       | 287-310                        | -0,11        | -0,6         | 80              |     |
|                   | N40               | N40 TF            | 1240-1280                                       | ≥923       | ≥955       | 302-326                        | -0,11        | -0,6         | 80              |     |
|                   | N42               | N42 TF            | 1280-1320                                       | ≥923       | ≥955       | 318-342                        | -0,11        | -0,6         | 80              |     |
|                   | N45               | N45 TF            | 1320-1380                                       | ≥876       | ≥955       | 342-366                        | -0,11        | -0,6         | 80              |     |
|                   | N48               | N48 TF            | 1380-1420                                       | ≥835       | ≥876       | 366-390                        | -0,11        | -0,6         | 80              |     |
|                   | N50               | N50 TF            | 1400-1450                                       | ≥835       | ≥876       | 376-408                        | -0,11        | -0,6         | 80              |     |
|                   | N52               |                   |   | 1440-1480  | ≥828       | ≥907                           | 394-414      | -0,11        | -0,6            | 80  |
|                   | N54               |                   |   | 1450-1500  | ≥876       | ≥876                           | 406-438      | -0,11        | 0,6             | 70  |
| N55               | N55 TD            |                   | 1470-1520                                       | ≥860       | ≥876       | 414-438                        | -0,11        | -0,6         | 60              |     |
| M                 | 35M               | 35M TF            | 1170-1210                                       | ≥868       | ≥1120      | 263-287                        | -0,1         | -0,6         | 100             |     |
|                   | 38M               | 38M TF            | 1210-1250                                       | ≥899       | ≥1120      | 287-310                        | -0,1         | -0,6         | 100             |     |
|                   | 40M               | 40M TF            | 1240-1280                                       | ≥923       | ≥1120      | 302-326                        | -0,1         | -0,6         | 100             |     |
|                   | 42M               | 42M TF            | 1280-1320                                       | ≥923       | ≥1120      | 318-342                        | -0,1         | -0,6         | 100             |     |
|                   | 45M               | 45M TF            | 1320-1370                                       | ≥876       | ≥1120      | 342-366                        | -0,1         | -0,6         | 100             |     |
|                   | 48M               | 48M TF            | 1370-1430                                       | ≥1035      | ≥1120      | 360-392                        | -0,1         | -0,6         | 100             |     |
|                   | 50M               | 50M TD            |   | 1400-1450  | ≥1033      | ≥1114                          | 382-406      | -0,1         | -0,6            | 100 |
|                   | 52M               |                   |   | 1430-1480  | ≥1035      | ≥1114                          | 398-422      | -0,1         | -0,6            | 100 |
| H                 | 35H               | 35H TF            | 1170-1210                                       | ≥868       | ≥1353      | 263-287                        | -0,1         | -0,56        | 120             |     |
|                   | 38H               | 38H TF            | 1210-1250                                       | ≥899       | ≥1353      | 287-310                        | -0,1         | -0,56        | 120             |     |
|                   | 40H               | 40H TF            | 1240-1280                                       | ≥923       | ≥1353      | 302-326                        | -0,1         | -0,56        | 120             |     |
|                   | 42H               | 42H TF            | 1280-1320                                       | ≥955       | ≥1353      | 318-342                        | -0,1         | -0,56        | 120             |     |
|                   | 45H               | 45H TF            | 1320-1370                                       | ≥1000      | ≥1353      | 344-376                        | -0,1         | -0,56        | 120             |     |
|                   | 48H               | 48H TF            | 1370-1430                                       | ≥1000      | ≥1353      | 366-390                        | -0,1         | -0,56        | 120             |     |
|                   | 50H               |                   |   | 1400-1450  | ≥1035      | ≥1274                          | 382-406      | -0,1         | -0,56           | 120 |
|                   | 52H               |                   |   | 1430-1480  | ≥1035      | ≥1274                          | 398-422      | -0,1         | -0,56           | 120 |
| SH                | 33SH              | 33SH TD           | 1130-1170                                       | ≥876       | ≥1592      | 247-272                        | -0,095       | -0,56        | 150             |     |
|                   | 35SH              | 35SH TD           | 1170-1210                                       | ≥876       | ≥1592      | 263-287                        | -0,095       | -0,56        | 150             |     |
|                   | 38SH              | 38SH TD           | 1210-1250                                       | ≥907       | ≥1592      | 287-310                        | -0,095       | -0,56        | 150             |     |
|                   | 40SH              | 40SH TD           | 1240-1280                                       | ≥939       | ≥1592      | 302-326                        | -0,095       | -0,56        | 150             |     |
|                   | 42SH              | 42SH TD           | 1280-1320                                       | ≥936       | ≥1600      | 312-344                        | -0,095       | -0,56        | 150             |     |
|                   | 45SH              | 45SH TD           | 1320-1370                                       | ≥1003      | ≥1592      | 342-366                        | -0,095       | -0,56        | 150             |     |
|                   | 48SH              |                   |   | 1370-1430  | ≥1003      | ≥1600                          | 366-390      | -0,095       | -0,56           | 150 |
|                   | 50SH              |                   |   | 1390-1430  | ≥1035      | ≥1512                          | 374-406      | -0,095       | -0,56           | 150 |
| KH                | 30KH              |                   | 1080-1130                                       | ≥812       | ≥1751      | 223-247                        | -0,1         | -0,53        | 160             |     |
|                   | 33KH              |                   | 1130-1170                                       | ≥860       | ≥1751      | 247-271                        | -0,1         | -0,53        | 160             |     |
|                   | 35KH              |                   | 1170-1220                                       | ≥884       | ≥1751      | 263-287                        | -0,1         | -0,53        | 160             |     |
|                   | 38KH              |                   | 1220-1250                                       | ≥923       | ≥1751      | 287-310                        | -0,1         | -0,53        | 160             |     |
|                   | 40KH              |                   | 1250-1280                                       | ≥947       | ≥1751      | 302-326                        | -0,1         | -0,53        | 160             |     |
|                   | 42KH              |                   | 1280-1320                                       | ≥971       | ≥1751      | 318-342                        | -0,1         | -0,53        | 160             |     |
|                   | 45KH              |                   | 1320-1370                                       | ≥1003      | ≥1751      | 342-366                        | -0,1         | -0,53        | 160             |     |
|                   | 48KH              |                   | 1360-1400                                       | ≥1003      | ≥1751      | 342-366                        | -0,1         | -0,53        | 160             |     |



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**NdFeB – gesintert /**  
**NdFeB – sintered**

**Magnetische Eigenschaften von gesinterten NdFeB Magneten / magnetic properties of sintered NdFeB magnets \***

| Werkstoff / grade |                   |                   | Magnetische Eigenschaften / magnetic properties |                          |                          |                   |              |              |                 |
|-------------------|-------------------|-------------------|---|--------------------------|--------------------------|-------------------|--------------|--------------|-----------------|
| normal            | Dy less<br>D Type | Dy free<br>F Type | Remanenz  | Koerzitiv-               | Koerzitiv-               | Energie Produkt   | Temp.-Koeff. | Temp.-Koeff. | Einsatztemp.    |
|                   |                   |                   | remanence                                       | Feldstärke               | Feldstärke               | energy density    | temp.-coeff. | temp.-coeff. | operation temp. |
|                   |                   |                   | Br [mT]   | coercivity<br>Hcb [kA/m] | coercivity<br>Hcj [kA/m] | (BH) max. [kJ/m³] | (Br) [%/K]   | (Hcj) [%/K]  | Tmax. [°C]      |
| UH                | 30UH              | 30UH TD           | 1080-1130                                       | ≥812                     | ≥1990                    | 223-247           | -0,09        | -0,56        | 180             |
|                   | 33UH              | 33UH TD           | 1130-1170                                       | ≥852                     | ≥1990                    | 247-271           | -0,09        | -0,56        | 180             |
|                   | 35UH              | 35UH TD           | 1170-1210                                       | ≥876                     | ≥1990                    | 263-287           | -0,09        | -0,56        | 180             |
|                   | 38UH              | 38UH TD           | 1220-1250                                       | ≥876                     | ≥1990                    | 287-310           | -0,09        | -0,56        | 180             |
|                   | 40UH              | 40UH TD           | 1250-1280                                       | ≥899                     | ≥1990                    | 302-326           | -0,09        | -0,56        | 180             |
|                   | 42UH              |                   | 1280-1320                                       | ≥907                     | ≥2000                    | 318-342           | -0,09        | -0,56        | 180             |
|                   | 44UH              |                   | 1310-1350                                       | ≥1003                    | ≥2000                    | 334-358           | -0,09        | -0,56        | 180             |
|                   | 45UH              |                   | 1330-1360                                       | ≥987                     | ≥1910                    | 342-366           | -0,09        | -0,56        | 180             |
|                   | 48UH              |                   | 1360-1410                                       | ≥1019                    | ≥1910                    | 358-390           | -0,09        | -0,56        | 180             |
| 50UH              |                   | 1390-1430         | ≥1035   | ≥1910                    | 374-406                  | -0,09             | -0,56        | 180          |                 |
| VH                | 30VH              |                   | 1080-1130                                       | ≥852                     | ≥2149                    | 223-247           | -0,1         | -0,50        | 190             |
|                   | 33VH              |                   | 1130-1170                                       | ≥860                     | ≥2149                    | 247-271           | -0,1         | -0,50        | 190             |
|                   | 35VH              |                   | 1170-1220                                       | ≥884                     | ≥2149                    | 263-287           | -0,1         | -0,50        | 190             |
|                   | 38VH              |                   | 1220-1250                                       | ≥923                     | ≥2149                    | 287-310           | -0,1         | -0,50        | 190             |
|                   | 40VH              |                   | 1250-1280                                       | ≥947                     | ≥2149                    | 302-326           | -0,1         | -0,50        | 190             |
|                   | 42VH              |                   | 1280-1320                                       | ≥971                     | ≥2149                    | 318-342           | -0,1         | -0,50        | 190             |
| EH                | 30EH              | 30EH TD           | 1080-1130                                       | ≥812                     | ≥2388                    | 223-247           | -0,085       | -0,56        | 200             |
|                   | 33EH              | 33EH TD           | 1140-1180                                       | ≥835                     | ≥2400                    | 248-272           | -0,085       | -0,56        | 200             |
|                   | 35EH              | 35EH TD           | 1170-1210                                       | ≥876                     | ≥2400                    | 263-287           | -0,085       | -0,56        | 200             |
|                   | 38EH              | 38EH TD           | 1220-1250                                       | ≥899                     | ≥2388                    | 287-310           | -0,085       | -0,56        | 200             |
|                   | 40EH              |                   | 1240-1280                                       | ≥907                     | ≥2220                    | 302-326           | -0,085       | -0,56        | 200             |
|                   | 42EH              |                   | 1280-1330                                       | ≥971                     | ≥2388                    | 310-342           | -0,085       | -0,56        | 200             |
| FH                | 30FH              |                   | 1080-1130                                       | ≥812                     | ≥2547                    | 223-247           | -0,085       | -0,45        | 210             |
|                   | 33FH              |                   | 1140-1180                                       | ≥835                     | ≥2547                    | 247-271           | -0,085       | -0,45        | 210             |
|                   | 35FH              |                   | 1170-1210                                       | ≥876                     | ≥2547                    | 263-287           | -0,085       | -0,45        | 210             |
|                   | 38FH              |                   | 1220-1250                                       | ≥899                     | ≥2547                    | 287-310           | -0,085       | -0,45        | 210             |
|                   | 40FH              |                   | 1240-1280                                       | ≥907                     | ≥2547                    | 287-310           | -0,085       | -0,45        | 210             |
| AH                | 28AH              |                   |   | ≥772                     | ≥2786                    | 199-231           | -0,08        | -0,45        | 230             |
|                   | 30AH              | 30AH TD           | 1100-1150                                       | ≥812                     | ≥2786                    | 223-255           | -0,08        | -0,45        | 230             |
|                   | 33AH              | 33AH TD           | 1130-1170                                       | ≥844                     | ≥2785                    | 247-271           | -0,08        | -0,45        | 230             |
|                   | 35AH              |                   | 1200-1240                                       | ≥883                     | ≥2786                    | 255-287           | -0,08        | -0,45        | 230             |
|                   | 38AH              |                   | 1220-1250                                       | ≥883                     | ≥2786                    | 263-287           | -0,08        | -0,45        | 230             |
| TH                | 30TH              |                   | 1080-1130                                       | ≥820                     | ≥3182                    | 233-247           | -0,08        | -0,42        | 250             |
|                   | 33TH              |                   | 1110-1170                                       | ≥851                     | ≥3182                    | 239-271           | -0,08        | -0,42        | 250             |
|                   | 35TH              |                   | 1170-1200                                       | ≥867                     | ≥3182                    | 263-287           | -0,08        | -0,42        | 250             |

T= T type grade guaranteed that the weight loss is <5mg/cm²    D= D type Dy less    F= F type Dy free

\*Alle angegebenen Werte wurden gemäß IEC 60404-5 am Probekörper ermittelt. Bei ungünstigem Formfaktor (L/D), besonders bei dünnen Wandstärken oder engen Polteilungen, können Abweichungen von den Werkstoffdaten auftreten.

