

MAGNETIC CHARACTERISTICS AND PHYSICAL PROPERTIES OF SINTERED NdFeB

Grade	Br mT (kGs)	H <sub>cb</sub> kA/m (kOe)	H <sub>cj</sub> kA/m (kOe)	(BH) <sub>max</sub> kJ/m <sup>3</sup> (MGOe)	(T <sub>w</sub> )
N27	1030-1080 (10.3-10.8)	≥ 796 ( ≥ 10.0)	≥ 955 ( ≥ 12)	199-231 (25-29)	80 °C
N30	1080-1130 (10.8-11.3)	≥ 796 ( ≥ 10.0)	≥ 955 ( ≥ 12)	223-247 (28-31)	80 °C
N33	1130-1170 (11.3-11.7)	≥ 836 ( ≥ 10.5)	≥ 955 ( ≥ 12)	247-271 (31-34)	80 °C
N35	1170-1220 (11.7-12.2)	≥ 868 ( ≥ 10.9)	≥ 955 ( ≥ 12)	263-287 (33-36)	80 °C
N38	1220-1250 (12.2-12.5)	≥ 899 ( ≥ 11.3)	≥ 955 ( ≥ 12)	287-310 (36-39)	80 °C
N40	1250-1280 (12.5-12.8)	≥ 907 ( ≥ 11.4)	≥ 955 ( ≥ 12)	302-326 (38-41)	80 °C
N42	1280-1320 (12.8-13.2)	≥ 915 ( ≥ 11.5)	≥ 955 ( ≥ 12)	318-342 (40-43)	80 °C
N45	1320-1380 (13.2-13.8)	≥ 923 ( ≥ 11.6)	≥ 955 ( ≥ 12)	342-366 (43-46)	80 °C
N48	1380-1420 (13.8-14.2)	≥ 923 ( ≥ 11.6)	≥ 876 ( ≥ 12)	366-390 (46-49)	80 °C
N50	1400-1450 (14.0-14.5)	≥ 796 ( ≥ 10.0)	≥ 876 ( ≥ 11)	382-406 (48-51)	60 °C
N52	1430-1480 (14.3-14.8)	≥ 796 ( ≥ 10.0)	≥ 876 ( ≥ 11)	398-422 (50-53)	60 °C
30M	1080-1130 (10.8-11.3)	≥ 796 ( ≥ 10.0)	≥ 1114 ( ≥ 14)	223-247 (28-31)	100 °C
33M	1130-1170 (11.3-11.7)	≥ 836 ( ≥ 10.5)	≥ 1114 ( ≥ 14)	247-263 (31-33)	100 °C
35M	1170-1220 (11.7-12.2)	≥ 868 ( ≥ 10.9)	≥ 1114 ( ≥ 14)	263-287 (33-36)	100 °C
38M	1220-1250 (12.2-12.5)	≥ 899 ( ≥ 11.3)	≥ 1114 ( ≥ 14)	287-310 (36-39)	100 °C
40M	1250-1280 (12.5-12.8)	≥ 923 ( ≥ 11.6)	≥ 1114 ( ≥ 14)	302-326 (38-41)	100 °C

42M	1280-1320 (12.8-13.2)	$\geq 955$ ( $\geq 12.0$ )	$\geq 1114$ ( $\geq 14$ )	318-342 (40-43)	100 °C
45M	1320-1380 (13.2-13.8)	$\geq 995$ ( $\geq 12.5$ )	$\geq 1114$ ( $\geq 14$ )	342-366 (43-46)	100 °C
48M	1360-1430 (13.6-14.3)	$\geq 1027$ ( $\geq 12.9$ )	$\geq 1114$ ( $\geq 14$ )	366-390 (46-49)	100 °C
50M	1400-1450 (14.0-14.5)	$\geq 1033$ ( $\geq 13.0$ )	$\geq 1114$ ( $\geq 14$ )	382-406 (48-51)	100 °C
30H	1080-1130 (10.8-11.3)	$\geq 796$ ( $\geq 10.0$ )	$\geq 1353$ ( $\geq 17$ )	223-247 (28-31)	120 °C
33H	1130-1170 (11.3-11.7)	$\geq 836$ ( $\geq 10.5$ )	$\geq 1353$ ( $\geq 17$ )	247-271 (31-34)	120 °C
35H	1170-1220 (11.7-12.2)	$\geq 868$ ( $\geq 10.9$ )	$\geq 1353$ ( $\geq 17$ )	263-287 (33-36)	120 °C
38H	1220-1250 (12.2-12.5)	$\geq 899$ ( $\geq 11.3$ )	$\geq 1353$ ( $\geq 17$ )	287-310 (36-39)	120 °C
40H	1250-1280 (12.5-12.8)	$\geq 923$ ( $\geq 11.6$ )	$\geq 1353$ ( $\geq 17$ )	302-326 (38-41)	120 °C
42H	1280-1320 (12.8-13.2)	$\geq 955$ ( $\geq 12.0$ )	$\geq 1353$ ( $\geq 17$ )	318-342 (40-43)	120 °C
45H	1300-1360 (13-13.6)	$\geq 963$ ( $\geq 12.1$ )	$\geq 1353$ ( $\geq 17$ )	326-358 (43-46)	120 °C
48H	1370-1430 (13.7-14.3)	$\geq 995$ ( $\geq 12.5$ )	$\geq 1353$ ( $\geq 17$ )	366-390 (46-49)	120 °C
30SH	1080-1130 (10.8-11.3)	$\geq 804$ ( $\geq 10.1$ )	$\geq 1592$ ( $\geq 20$ )	223-247 (28-31)	150 °C
33SH	1130-1170 (11.3-11.7)	$\geq 844$ ( $\geq 10.6$ )	$\geq 1592$ ( $\geq 20$ )	247-271 (31-34)	150 °C
35SH	1170-1220 (11.7-12.2)	$\geq 876$ ( $\geq 11.0$ )	$\geq 1592$ ( $\geq 20$ )	263-287 (33-36)	150 °C
38SH	1220-1250 (12.2-12.5)	$\geq 907$ ( $\geq 11.4$ )	$\geq 1592$ ( $\geq 20$ )	287-310 (36-39)	150 °C
40SH	1240-1280 (12.5-12.8)	$\geq 939$ ( $\geq 11.8$ )	$\geq 1592$ ( $\geq 20$ )	302-326 (38-41)	150 °C
42SH	1280-1320 (12.8-13.2)	$\geq 987$ ( $\geq 12.4$ )	$\geq 1592$ ( $\geq 20$ )	318-342 (40-43)	150 °C
45SH	1320-1380	$\geq 1003$	$\geq 1592$	342-366	150 °C

	(13.2-13.8)	( $\geq 12.6$ )	( $\geq 20$ )	(43-46)	
28UH	1020-1080 (10.2-10.8)	$\geq 764$ ( $\geq 9.6$ )	$\geq 1990$ ( $\geq 25$ )	207-231 (26-29)	180 °C
30UH	1080-1130 (10.8-11.3)	$\geq 812$ ( $\geq 10.2$ )	$\geq 1990$ ( $\geq 25$ )	223-247 (28-31)	180 °C
33UH	1130-1170 (11.3-11.7)	$\geq 852$ ( $\geq 10.7$ )	$\geq 1990$ ( $\geq 25$ )	247-271 (31-34)	180 °C
35UH	1180-1220 (11.8-12.2)	$\geq 860$ ( $\geq 10.8$ )	$\geq 1990$ ( $\geq 25$ )	263-287 (33-36)	180 °C
38UH	1220-1250 (12.2-12.5)	$\geq 876$ ( $\geq 11.0$ )	$\geq 1990$ ( $\geq 25$ )	287-310 (36-39)	180 °C
40UH	1240-1280 (12.5-12.8)	$\geq 899$ ( $\geq 11.3$ )	$\geq 1990$ ( $\geq 25$ )	302-326 (38-41)	180 °C
28EH	1040-1090 (10.4-10.9)	$\geq 780$ ( $\geq 9.8$ )	$\geq 2388$ ( $\geq 30$ )	207-231 (26-29)	200 °C
30EH	1080-1130 (10.8-11.3)	$\geq 812$ ( $\geq 10.2$ )	$\geq 2388$ ( $\geq 30$ )	223-247 (28-31)	200 °C
33EH	1130-1170 (11.3-11.7)	$\geq 836$ ( $\geq 10.5$ )	$\geq 2388$ ( $\geq 30$ )	247-271 (31-34)	200 °C
35EH	1170-1220 (11.7-12.2)	$\geq 876$ ( $\geq 11.0$ )	$\geq 2388$ ( $\geq 30$ )	263-287 (33-36)	200 °C
38EH	1220-1250 (12.2-12.5)	$\geq 899$ ( $\geq 11.3$ )	$\geq 2388$ ( $\geq 30$ )	287-310 (36-39)	200 °C

The above mentioned grades are our basic grades. We also have T and L-T series grades which are derived from these basic grades. For instance, 45T, L-38SHT, etc.. The main properties of the derived grades such as Br, Hcj, Hcb and (BH)max are corresponding to those of the basic grades, while other properties are different.

#### Other Performance Data

Grade	$\mu_r$	T <sub>c</sub> °C	Density (g/cm)	% / °C	
				$\alpha$ (Br)	$\beta$ (Hc.j)
Basic Grade	1.05	310	7.5	-0.12	-0.7
“T” Grade	1.05	330	7.5	-0.11	-0.6
“L-T” Grade	1.05	350	7.5	-0.10	-0.5