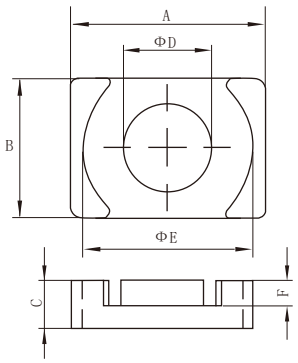
磁粉心命名规则
Powder Core Designation

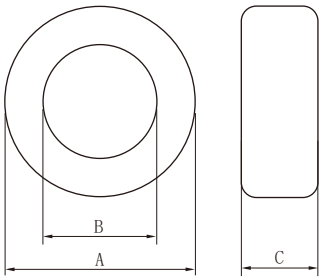
EQ形磁粉心 EQ-Cores



EQ 26 19 07 NK 060

- 磁导率代码 Perm.Code
- 材料代码 Material Code
- 高度代码 Height Code
- 宽度代码 Width Code
- 长度代码 Length Code
- 形状代码 Shape Code

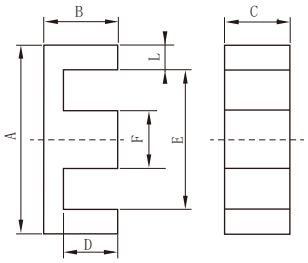
环形磁粉心 Ring-Cores



NS 270 060 E 18

- 高度代码 Height Code
- 非常规高度代码 Unconventional Height Code
- 磁导率代码 Perm.Code
- 外径代码 OD Code
- 材料代码 Material Code

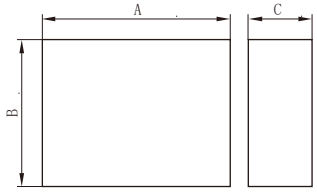
E形磁粉心 E-Cores



E 43 21 20 NS 060

- 磁导率代码 Perm.Code
- 材料代码 Material Code
- 高度代码 Height Code
- 宽度代码 Width Code
- 长度代码 Length Code
- 形状代码 Shape Code

块形磁粉心 Block- Cores



B 60 30 20 NS 060

- 磁导率代码 Perm.Code
- 材料代码 Material Code
- 高度代码 Height Code
- 宽度代码 Width Code
- 长度代码 Length Code
- 形状代码 Shape Code

环形磁粉心电感因数
Ring Core Nominal AL Value (Unit: nH/N^2)

磁导率 Permeability 型号 Part No.	26	60	75	90	125
N□078□□□	11	25	31	37	52
N□102□□□	14	32	40	48	66
N□127□□□	12	27	34	40	56
N□166□□□	15	35	43	52	72
N□172□□□	19	43	53	64	89
N□203□□□	14	32	41	49	68
N□229□□□	19	43	54	65	90
N□234□□□	22	51	63	76	105
N□270□□□	32	75	94	113	157
N□330□□□	28	61	76	91	127
N□343□□□	16	38	47	57	79
N□358□□□	24	56	70	84	117
N□378□□□	39	90	113	135	187
N□400□□□	35	81	101	121	168
N□401□□□	53	119	153	183	254
N□467□□□	59	135	169	202	281
N□468□□□	37	86	107	128	178
N□508□□□	32	73	91	109	152
N□571□□□	60	138	172	206	287
N□572□□□	33	75	94	112	156
N□610□□□	83	192	240	288	400
N□680□□□	62	143	179	215	299
N□740□□□	89	206	257	309	429
N□777□□□	30	68	85	102	142
N□778□□□	37	85	107	128	178
N□1020□□□E13.6	40	92	115	139	192
N□1020□□□E16.5	48	112	137	164	228

电感因数：$A_L = L/N^2$（nH/N^2），单匝的电感量，单位是纳享，测试频率是100 kHz，测试磁通密度小于1mT。电感因数AL值是由磁心的尺寸和磁导率决定的，与材料无关。

Definition of inductance factor: $A_L = L/N^2$（nH /N^2）. The inductance per single winding turn. The unit is nanohenry. It is measured at the flux density of less than 1 mili-Tesla and the frequency of 100 kHz. The AL values are determined by dimension & permeability of the cores instead of materials.

磁心的电感公差范围根据产品尺寸分为±8%到±12%不等。本公司可以根据客户的要求将同一批产品按电感±2%公差进行分档包装。减少对绕组圈数的调整，从而可以提高绕线效率，降低绕线成本。

The tolerance of the inductance of the cores is ±8% or ±12% which is related to the core size. The cores of one batch can be graded and packed into ±2% rang of inductance individually according to customer's requirement so that the adjust frequency during the winding can be minimized. The winding efficiency can be increased and the related cost can be reduced as well.

环形磁粉心尺寸
Ring Core Dimensions

产品型号 Part No.	喷涂前 Before coating			喷涂后 After coating		
	ODmm	IDmm	HTmm	ODmax mm	IDmin mm	HTmax mm
N□078□□□	7.87	3.96	3.18	8.51	3.43	3.81
N□102□□□	10.16	5.08	3.96	10.80	4.57	4.57
N□127□□□	12.70	7.62	4.75	13.46	6.99	5.51
N□166□□□	16.51	10.16	6.35	17.40	9.53	7.11
N□172□□□	17.27	9.65	6.35	18.03	9.02	7.11
N□203□□□	20.32	12.70	6.35	21.10	12.07	7.11
N□229□□□	22.86	13.97	7.62	23.62	13.39	8.38
N□234□□□	23.57	14.40	8.89	24.30	13.77	9.70
N□270□□□	26.92	14.73	11.18	27.70	14.10	11.99
N□330□□□	33.02	19.94	10.67	33.83	19.30	11.61
N□343□□□	34.29	23.37	8.89	35.20	22.60	9.83
N□358□□□	35.81	22.35	10.46	36.70	21.50	11.28
N□378□□□	37.90	22.90	15.0	38.70	22.10	16.00
N□400□□□	39.88	24.13	14.48	40.70	23.30	15.37
N□401□□□	40.13	22.08	17.00	40.94	21.27	17.89
N□467□□□	46.74	24.13	18.03	47.60	23.30	18.92
N□468□□□	46.74	28.70	15.24	47.60	27.90	16.13
N□508□□□	50.80	31.75	13.46	51.70	30.90	14.35
N□571□□□	57.15	26.39	15.24	58.00	25.60	16.10
N□572□□□	57.15	35.56	13.97	58.00	34.70	14.86
N□610□□□	62.00	32.60	25.00	63.10	31.37	26.27
N□680□□□	68.80	36.00	20.00	69.40	34.70	21.40
N□740□□□	74.10	45.30	35.00	75.20	44.07	36.27
N□777□□□	77.80	49.23	12.70	78.90	48.00	13.97
N□778□□□	77.80	49.23	15.90	78.90	48.00	17.20
N□1020□□□E13.6	101.60	57.15	13.59	103.20	55.70	14.86
N□1020□□□E16.5	101.60	57.15	16.51	103.20	55.70	17.78

环形磁粉心参数
Ring Core Parameters

产品型号 Part No.	$C_1 mm^{-1}$	$C_2 mm^{-3}$	Ae (cm^2)	le (cm)	Ve (cm^3)
N□078□□□	2.8768	4.8122E-01	0.062	1.787	0.110
N□102□□□	2.2891	2.3684E-01	0.100	2.380	0.238
N□127□□□	2.5895	2.1934E-01	0.114	3.12	0.356
N□166□□□	2.0380	1.0309E-01	0.192	4.110	0.789
N□172□□□	1.7001	7.2277E-02	0.232	4.140	0.961
N□203□□□	2.1053	8.8631E-02	0.226	5.090	1.151
N□229□□□	1.6743	5.0440E-02	0.331	5.670	1.877
N□234□□□	1.4343	3.5907E-02	0.388	5.880	2.281
N□270□□□	0.9320	1.4097E-02	0.654	6.350	4.154
N□330□□□	1.1675	1.7088E-02	0.672	8.150	5.477
N□343□□□	1.8434	3.8445E-02	0.454	8.950	4.063
N□358□□□	1.2743	1.8439E-02	0.678	8.980	6.088
N□378□□□	0.8314	7.548E-06	1.102	9.158	10.087
N□400□□□	0.8637	7.7347E-03	1.072	9.840	10.549
N□401□□□	0.6186	4.1535E-03	1.537	9.510	15.043
N□467□□□	0.5271	2.6815E-03	1.990	10.740	21.373
N□468□□□	0.8454	6.2725E-03	1.340	11.630	15.584
N□508□□□	0.9932	7.8905E-03	1.251	12.730	15.929
N□571□□□	0.5336	2.3919E-03	2.290	12.500	28.600
N□572□□□	0.9480	6.4047E-03	1.444	14.300	20.650
N□610□□□	0.3910	1.1010E-03	3.675	14.370	52.810
N□680□□□	0.4850	1.5312E-03	3.104	16.330	50.690
N□740□□□	0.3648	7.3853E-04	5.040	18.380	92.640
N□777□□□	1.0811	6.0637E-03	1.770	20.000	34.770
N□778□□□	0.8635	3.8686E-03	2.270	20.000	43.531
N□1020□□□E13.6	0.8036	2.7347E-03	2.972	24.271	72.122
N□1020□□□E16.5	0.6614	1.8529E-03	3.523	24.271	85.495

传统材料：
NS：铁硅铝磁粉心（sendust） NK：铁硅磁粉心 NH：铁镍磁粉心NHU：铁镍超磁通磁粉心NSW：高磁通铁硅铝磁粉心 NSWL：高频高磁通硅铝磁粉心
复合材料：
NKS：铁硅铝磁粉心 NHS/NSH：铁硅铝镍磁粉心 NHK/NKH：铁硅镍磁粉心
Traditional Material
NS: Sendust powder Core NK: Silicon Iron powder Core NH: Nickel Iron powder Core NHU：Ultra flux nickel iron powder core
NSW: High flux silicon aluminum iron powder core NSWL: High flux high frequency silicon aluminum iron powder core
Compound Material
NKS: Silicon Aluminum Iron powder Core NHS/NSH: Nickel Aluminum Iron powder Core
NHK/NKH: Silicon Nickel Iron powder Core
2）除表中尺寸外，我们可以根据客户的需要制作其它尺寸的磁心。
We can also provide other dimension cores Specified by customer besides the cores in the above table.

线规表
Wire Table

AWG Wire No.	Bare Area		Resistivity $10^{-6}\Omega cm$ At 20℃	Heavy Synthetics					Current Capacity Amps (listed by columns of amps/cm^2)			
				Area		Diameter		Weight				
	cm^2X10^{-3}	Cir-Mil		$cm^2(x10^3)$	Cir-mil	cm	inch	gm/cm	200	400	600	800
10	53.61	10384	32.70	55.9	11046	0.267	0.1051	0.468	10.4	20.8	31.2	41.6
11	41.68	8226	41.37	44.5	8798	0.238	0.0938	0.3750	8.23	16.4	24.6	32.8
12	33.08	6529	52.09	35.64	7022	0.213	0.0838	0.2977	6.53	13.06	19.6	26.1
13	26.26	5184	65.64	28.36	5610	0.190	0.0749	0.2367	5.18	10.4	15.5	20.8
14	20.82	4109	82.80	22.95	4556	0.171	0.0675	0.1879	4.11	8.22	12.3	16.4
15	16.51	3260	104.3	18.37	3624	0.153	0.0602	0.1492	3.26	6.52	9.78	13.0
16	13.07	2581	131.8	14.73	2905	0.137	0.0539	0.1184	2.58	5.16	7.74	10.3
17	10.39	2052	165.8	11.68	2323	0.122	0.0482	0.0943	2.05	4.10	6.15	8.20
18	8.228	1624	209.5	9.326	1857	0.109	0.0431	0.07472	1.62	3.25	4.88	6.50
19	6.531	1289	263.9	7.539	1490	0.0980	0.0386	0.05940	1.29	2.58	3.87	5.16
20	5.188	1024	332.3	6.065	1197	0.0879	0.0346	0.04726	1.02	2.05	3.08	4.10
21	4.116	812.3	418.9	4.837	954.8	0.0785	0.0309	0.03757	0.812	1.63	2.44	3.25
22	3.243	640.1	531.4	3.857	761.7	0.0701	0.0276	0.02965	0.640	1.28	1.92	2.56
23	2.588	510.8	666.0	3.135	620.0	0.0632	0.0249	0.02372	0.511	1.02	1.53	2.04
24	2.047	404.0	842.1	2.514	497.3	0.0566	0.0223	0.01884	0.404	0.808	1.21	1.62
25	1.623	320.4	1062.0	2.002	396.0	0.0505	0.0199	0.01498	0.320	0.641	0.962	1.28
26	1.280	252.8	1345.0	1.603	316.8	0.0452	0.0178	0.01185	0.253	0.506	0.759	1.01
27	10.21	201.6	1687.6	1.313	259.2	0.0409	0.0161	0.00945	0.202	0.403	0.604	0.806
28	0.8046	158.8	2142.7	1.0515	207.3	0.0366	0.0144	0.00747	0.159	0.318	0.477	0.636
29	0.6470	127.7	2664.3	0.8548	169.0	0.0330	0.0130	0.00602	0.128	0.255	0.382	0.510
30	0.5067	100.0	3402.2	0.6785	134.5	0.0294	0.0116	0.00472	0.100	0.200	0.300	0.400
31	0.4013	79.21	4294.6	0.5595	110.2	0.0267	0.0105	0.00372	0.0792	0.158	0.237	0.316
32	0.3242	64.00	5314.9	0.4559	90.25	0.0241	0.0095	0.00305	0.0640	0.128	0.192	0.256
33	0.2554	50.41	6748.6	0.3662	72.25	0.0216	0.0085	0.00214	0.0504	0.101	0.152	0.202
34	0.2011	39.69	8572.8	0.2863	56.25	0.0191	0.0075	0.00189	0.0397	0.0794	0.119	0.159
35	0.1589	31.36	10849	0.2268	44.89	0.0170	0.0067	0.00150	0.0314	0.0627	0.0940	0.125
36	0.1266	25.00	13608	0.1813	36.00	0.0152	0.0060	0.00119	0.0250	0.0500	0.0750	0.100
37	0.1026	20.25	16801	0.1538	30.25	0.0140	0.0055	0.000977	0.0203	0.0405	0.0608	0.0810
38	0.08107	16.00	21266	0.1207	24.01	0.0124	0.0049	0.000773	0.0160	0.0320	0.0480	0.0640
39	0.06207	12.25	27775	0.0932	18.49	0.0109	0.0043	0.000593	0.0123	0.0245	0.0368	0.0490
40	0.04869	9.61	35400	0.0723	14.44	0.0096	0.0038	0.000464	0.00961	0.0192	0.0288	0.0384
41	0.03972	7.84	43405	0.0584	11.56	0.00863	0.0034	0.000379	0.00785	0.0157	0.0236	0.0314
42	0.03166	6.25	54429	0.04558	9.00	0.00762	0.0030	0.000299	0.00625	0.0125	0.0188	0.0250
43	0.02452	4.84	70308	0.03683	7.29	0.00685	0.0027	0.000233	0.00484	0.00968	0.0145	0.0194
44	0.0202	4.00	85072	0.03165	6.25	0.00635	0.0025	0.000195	0.00400	0.00800	0.0120	0.0160