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Features and Applications Surface Coating Temperature Characteristic Handling and Storage Considerations

General Information





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GeneralInformation

No.1 / features &applications

	Features	Applications
Iron Powder Cores	High Maximum Flux Density Low Cost Large Energy Storage Capacity	High Frequency Chokes Output Chokes for Switching Power Supplies Conducted EMI Noise Filters Pulse Transformers DC Output/Input Filters light Dimmer Chokes Power Factor Correction Inductors Continuous-mode Fly-back Inductors
Sendust Cores	Core losses Significantly lower Than iron Powder Cores Good DC bias chaiacteristics in line noise filter Near zero magnetostriction coefficient switching regulator inductor High price ratio Pulse and FLY- back transformer	Switching Regulantor Inductors In-line Noise Filters Pulse Transformers Fly-back Transformers PFC Chokes
Si-Fecores	Excellent DC Characteristics High Bmax of 16000Gauss Excellent temperature stability large energy storage capacity Near zero magnetostriction coefficient switching regulator inductor No thermal aging Low cost, it can substitute Hi- Flux core in some applications	Power choke for high current (over 50A) Power inductor for energy storage (solar cell,wind energy,etc) Power output stage inductor for switch mode power supply Smoothing choke for inverter UPS Power Supply

GeneralInformation

No.2 / Surface Coating

The toroidal and bus bar cores listed in this catalog are coated. All finishes have a minimum dielectric strength of 500 Vrms at 60Hz and resist most cleaning solvents. Extended exposure to certain solvents may have detrimental effects. The E Cores and the P cores are treated to resist corrosion.

GeneralInformation

No.3 / Temperature Characteristic

Common working temperature for powder core is between-55°C to125°C. When the working environment temperature rises above 150°C, the organic adhesive (usually epoxy resin) will begin to decompose, resulting in the degrandation of the device's performance and shortening of the devices life. The severity of the degrading depends on the time, temperature, size of the magnetic powder core, working frequency and the flux density.

GeneralInformation

No.4 / Handling Storage Considerations

We recommend the cores remain in the original factory packaging and bo sheltered from rain or high humidity since uncoated iron can eventually form surface rust magnetic powder cores tend to be heavier than many other products and special con sideration must be given to the weight of the carton. Do not stack more than 5 carton shigh to avoid crushing the bottom cartons. Please be aware the cores are quite dense and package size can be decivingly heavy. Damage will occur to cores ifboxes are handled in correctly or dropped. Additionally, if individual cores are dropped on a hard surface a crack or chip and result shavings, oil, solvents, dirt du st and acids.

Toroidal Cores

E Cores

Plain Cores

Magnetic Characteristics

Iron Powder Cores



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Iron Powder Cores

No.1 / Product Characteristics

/ Material Properties

Material Mix Number	Reference Permeability	Temp.CoefOerm (+ppm/°C)	CoefofinExpan (+ppm/°C)	Color Code
-18	55	385	11	Green/Red
-19	55	650	11	Red/Green
-26	75	825	12	Yellow/Whitee
-28	22	510	11	Gray/Green
-30	22	510	11	Green/Gray
-33	33	665	11	Gray/yellow
-34	33	565	11	Gray/Blue
-35	33	665	11	Yellow/Gray
-38	85	955	12	Gray/Black
-40	60	950	11	Green/Yellow
-52	75	650	12	Green/Blue

/ Core Loss Comparison (mW/cm3)

Material Mix No .	60HZ 500Gs	1KHZ 1500Gs	10KHZ 500Gs	50KHZ 225Gs	100KHZ 140Gs	500KHZ 50Gs	%µ.	µeffective
-18	48	72	70	63	46	37	74	40.7
-19	31	60	72	71	54	49	74	40.7
-26	32	60	75	89	83	139	51	38.3
-28	38	80	120	164	158	247	91	20.0
-30	37	80	120	149	129	129	91	20.0
-33	37	80	126	182	180	291	84	27.7
-34	29	61	87	100	82	78	84	27.7
-35	33	73	109	137	119	123	84	27.7
-38	31	57	72	99	103	217	51	43.4
-40	29	62	93	130	127	223	62	37.7
-52	30	56	68	72	58	63	59	44.3

Iron Powder Cores

No.2 / Product Characteristics

Iron Powder Cores

No.3 / Toroidal Cores

/ TEMPERATURE EFFECTS

Common working temperature for powder core is between-55 ℃~+125℃. when the working environment temperaturerises a bove150°C, the organic adhesive(usually epoxy resin) will begin to decompose, resulting in the degran dation of the device's performance and shortening of the device s life. The severity of the degrading depends on the time, temperature, size of the magnetic powder core, working frequency and the flux density.

/ Magentic Tolerance

Matorial (Mix No.)	- 2	- 8	-14	-18	-19	-26	- 28	-30	-33	- 34	-35	-38	-40	- 4 5	- 5 2
A _∟ ATolerance	±5%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%

The cores are manu factured to the AL values listed; the permea bility for each material is for reference only, in all cases, the AL values are based on peak AC flux density of 10 gauss (1mT) at a frequency of 10 kHz. The toroidal cores are tested with an evenly -spaced full single-layer winding in order to minimize leakage effects. Iron powder cores tested with a small number of turns which are not evenly distributed will produce higher inductance readings than expected. The E Coresare tested with 100 turns. The Magneti Characteristic curves shown have a typical tolerance of $\pm 10\%$. The curves on core loss characteristics have a typical tolerance of $\pm 15\%$

/ Material Applications

Typical Application	- 2	-8	-14	-18	-19	-26	-28	-30	-33	-34	-35	-38	-40	-45	-52
Light Dimmer Chokes						X						X	×	X	
60Hz Differential-mode EML line Chokes						×						×	×	×	×
Dc Chokes:<50kHz or low Et/N(Buck/Boost)							×	×	×	×	×	×	×	×	
Dc Chokes:≥50kHz or higher Et/N (Buck/Boost)		X	×	×	×		X	×	×	×	×				X
Power Factor Correction Chokes:<50kHz						×	×	×	×	×	×		×		
Power Factor Correction Chokes:≥50kHz	×	×	×	×	×		×	×	×	×	×				
Resonant Inductors:≥50kHz	×		X												

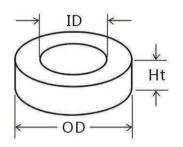
TYPICAL PART NO. AT 106-52

Toroidal Cores OD in 100th inches Material Mix No.

 $\ell_{\rm e}$: (Mean Magnetic Path Length)

Ae: (Cross Section Area)

(Core Volume)





Part No .	A _L nH/N²	OD mm	ID mm	HT mm	ℓ. cm	A e cm²	V cm³
AT25-18 AT25-26 AT25-40 AT25-52	17.0 24.5 20.5 23.0	6.48	3.05	2.44	1.50	.037	.0.55
AT26-18 AT26-26 AT26-52	41.5 57.0 56.0	6.73	2.67	4.83	1.47	.090	.1.33
AT27-18 AT27-26 AT27-52	18.5 27.5 25.5	7.11	3.84	3.25	1.71	.047	.0.80
AT30-18 AT30-26 AT30-40 AT30-52	22.0 33.5 28.0 30.5	7.80	3.84	3.25	1.84	.060	.110
AT32-52	35.0	8.31	4.29	4.01	1.96	.073	.144
AT37-18 AT37-19 AT37-26 AT37-40 AT37-52	19.0 19.0 28.5 24.5 26.0	9.53	5.21	3.25	2.31	.064	.147
AT38-18 AT38-26 AT38-40 AT38-52	36.0 49.0 41.5 49.0	9.53	4.45	4.83	2.18	.114	.248
AT40-26 AT40-52	36.0 36.0	10.2	5.21	4.14	2.41	.093	.223

Iron Powder Cores

No.4 / Toroidal Cores

Iron Powder Cores

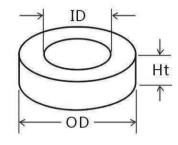
No.5 / Toroidal Cores

TYPICAL PART NO. AT 106-52

Toroidal Cores OD in 100th inches Material Mix No.

 ℓ_e : (Mean Magnetic Path Length) (Cross Section Area)

(Core Volume)





4		
		7

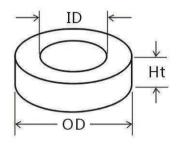
Part No .	A _L nH/N²	OD mm	ID mm	HT mm	ℓ. cm	A _e cm²	V cm³
AT44-18 AT44-26 AT44-40 AT44-52	25.5 37.0 31.0 35.0	11.2	5.28	4.04	2.68	.099	.266
AT44-52C AT44-52D	55.0 70.0	11.2 11.2	5.82 5.82	6.35 8.59	2.68 2.68	.157 .212	.419 .567
AT50-18 AT50-26 AT50-38 AT50-40 AT50-52	24.0 33.0 37.5 29.5 33.0	12.7	7.70	4.83	3.19	.112	.358
AT50-18B AT50-26B AT50-38B AT50-40B AT50-52B	32.0 43.5 49.5 38.5 43.5	12.7	7.70	6.35	3.19	.148	.471
AT50-26C	61.0	12.7	7.70	8.51	3.19	.200	.637
AT50-26D AT50-40D AT50-52D	72.0 59.0 66.0	12.7	7.70	9.53	3.19	.223	.711
AT51-18C AT51-26C AT51-40C AT51-52C	55.0 83.0 67.0 75.0	12.7	5.08	6.35	2.79	.223	.622
AT57-52	49.5	14.6	6.93	4.98	3.38	.178	.601
AT57-52A	66.0	14.6	6.93	6.68	3.38	.239	.805



Toroidal Cores OD in 100th inches Material Mix No .

(Mean Magnetic Path Length)

Ae: (Cross Section Area) (Core Volume)





Part No .	A _L nH/N²	OD mm	ID mm	HT mm	ℓ. cm	A _e cm²	V cm³
AT60-18 AT60-26 AT60-40 AT60-52	34.5 50.0 41.5 47.0	15.2	8.53	5.94	3.74	.178	.699
AT60-26D AT60-52D	97.0 94.0	15.2	8.53	11.9	3.74	.374	1.400
AT68-18 AT68-26 AT68-38 AT68-40 AT68-52	29.0 43.5 45.0 35.0 40.0	15.2	9.40	4.83	4.23	.179	.759
AT68-18A AT68-26A AT68-38A AT68-40A AT68-52A	39.5 58.0 61.0 47.0 54.0	17.5	9.40	6.35	4.23	.242	1.03
AT68-26D AT68-40D AT68-52D	87.0 70.0 80.0	17.5	9.40	9.53	4.23	.358	1.52
AT72-18 AT72-26 AT72-40 AT72-52	60.0 90.0 71.0 82.0	18.3	7.11	6.60	4.01	.349	1.40
AT80-18 AT80-26 AT80-38 AT80-40 AT80-52	31.0 46.0 48.0 39.5 42.0	20.2	12.6	6.35	5.14	.231	1.19

Iron Powder Cores

No.6 / Toroidal Cores

Iron Powder Cores

No.7 / Toroidal Cores

TYPICAL PART NO. AT 106-52

Toroidal Cores
OD in 100th inches
Material Mix No .

 $\ell_{ ext{e}}$: (Mean Magnetic Path Length)

A e: (Cross Section Area)
V: (Core Volume)

AT106-38

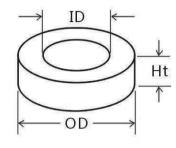
AT106-40

AT106-52

108.0

81.0

95.0





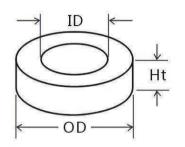
Part No .	A _L nH/N²	OD mm	ID mm	HT mm	ℓ. cm	A _e cm²	V cm³
AT80-18B AT80-26B AT80-38B AT80-40B AT80-52B	46.5 71.0 72.0 59.0 63.0	20.2	12.6	9.53	5.14	.347	1.78
AT80-26D AT80-40D AT80-52D	92.0 79.0 83.0	20.2	12.6	12.7	5.14	.453	2.33
AT90-18 AT90-26 AT90-38 AT90-40 AT90-52	47.0 70.0 73.0 57.0 64.0	22.9	14.0	9.53	5.78	.395	2.28
AT94-18 AT94-26 AT94-38 AT94-40 AT94-52	42.0 60.0 65.0 49.0 57.0	23.9	14.2	7.92	5.97	.362	2.16
AT106-18 AT106-26 AT106-28 AT106-30 AT106-33 AT106-34 AT106-35	70.0 93.0 30.0 30.0 40.0 40.0	26.9	14.5	11.1	6.49	.659	4.28



OD in 100th inches
Material Mix No.

 $\ell_{ ext{ iny e}}$: (Mean Magnetic Path Length)

A⊖: (Cross Section Area)
V: (Core Volume)





Part No .	A _L nH/N²	OD mm	ID mm	HT mm	ℓ. cm	A _e cm²	V cm³
AT106-18A AT106-26A AT106-40A AT106-52A	49.0 67.0 58.0 67.0	26.9	14.5	7.92	6.49	.461	3.00
AT106-18B AT106-26B AT106-40B AT106-52B	91.0 124.0 106.0 124.0	26.9	14.5	14.6	6.49	.858	5.57
AT130-18 AT130-26 AT130-28 AT130-30 AT130-33 AT130-34 AT130-35 AT130-38 AT130-40 AT130-52	58.0 81.0 25.0 25.0 33.5 33.5 33.5 90.0 69.0 79.0	33.0	19.8	11.1	8.28	.698	5.78
AT130-26A AT130-40A	41.0 34.0	33.0	19.8	5.72	8.28	.361	2.99
AT131-18 AT131-26 AT131-33 AT131-34 AT131-35 AT131-40 AT131-52	79.0 116.0 46.5 46.5 46.5 93.0 108.0	33.0	16.3	11.1	7.72	.885	6.84
AT132-26 AT132-40 AT132-52	103.0 83.0 95.0	33.0	17.8	11.1	7.96	.805	6.41

Iron Powder Cores

No.8 / Toroidal Cores

Iron Powder Cores

No.9 / Toroidal Cores

TYPICAL PART NO. AT 106-52

AZE Toroidal Cores OD in 100th inches Material Mix No.

 ℓ_e : (Mean Magnetic Path Length)

(Cross Section Area) V : (Core Volume)

AT184-30

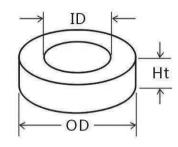
AT184-33

AT184-34

51.0

70.0

70.0





AZE Part No .	A _L nH/N²	OD mm	ID mm	HT mm	ℓª cm	A _e cm²	V cm³
AT141-26 AT141-40 AT141-52	75.0 60.0 69.0	35.9	22.4	10.5	9.14	.674	6.16
AT150-18 AT150-26 AT150-40 AT150-52	65.0 96.0 78.0 89.0	38.4	21.5	11.1	9.38	.887	8.31
AT150-26A AT150-38A	66.0 74.5	38.4	21.5	8.26	9.38	.657	6.16
AT157-18 AT157-26 AT157-28 AT157-30 AT157-33 AT157-34 AT157-35 AT157-38 AT157-40 AT157-52	73.0 100.0 31.5 31.5 43.5 43.5 43.5 112.0 86.0 99.0	39.9	24.1	14.5	10.1	1.06	10.7
AT175-18 AT175-26 AT175-40 AT175-52	82.0 105.0 90.0 105.0	44.5	27.2	16.5	11.2	1.34	15.0
AT184-18 AT184-26 AT184-28 AT184-30	116.0 169.0 51.0 51.0	46.7	24.1	18.0	11.2	1.88	21.0

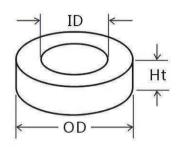


AZE Toroidal Cores OD in 100th inches Material Mix No.

(Mean Magnetic Path Length)

Ae: (Cross Section Area)

(Core Volume)





AZE Part No .	A _L nH/N²	OD mm	ID mm	HT mm	ℓ. cm	$A_{ m e}$ cm²	V cm³
AT184-35 AT184-40 AT184-52	70.0 143.0 159.0	46.7	24.1	18.0	11.2	1.88	21.0
AT200-18 AT200-26 AT200-33 AT200-34 AT200-35 AT200-40 AT200-52	67.0 92.0 37.0 37.0 37.0 79.0 92.0	50.8	31.8	14.0	13.0	1.27	16.4
AT200-18B AT200-26B AT200-30B AT200-35B AT200-40B AT200-52B	120.0 160.0 51.0 74.0 142.0 155.0	50.8	31.8	25.4	13.0	2.32	30.00
AT201-18 AT201-26 AT201-40 AT201-52	164.0 224.0 194.0 224.0	50.8	24.1	22.2	11.8	2.81	33.2
AT224-26C AT224-52C	155.0 155.0	57.2	31.8	19.1	14.0	2.31	32.2
AT225-18 AT225-26 AT225-30 AT225-33 AT225-34 AT225-35	67.0 98.0 28.0 37.0 37.0 37.0	57.2 57.2	35.7 35.7	14.0	14.6	1.42	20.7

Iron Powder Cores

No.10/ Toroidal Cores

Iron Powder Cores

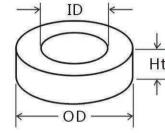
No.11/ Toroidal Cores

TYPICAL PART NO. AT 106-52

Toroidal Cores OD in 100th inches Material Mix No.

 ℓ_e : (Mean Magnetic Path Length)

(Cross Section Area) (Core Volume)





Ht	
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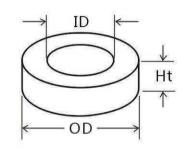
Part No .	A _L nH/N²	OD mm	ID mm	HT mm	ℓ. cm	A _e cm²	V cm³
AT225-40 AT225-52	78.0 92.0	57.2	35.7	14.0	14.6	1.42	20.7
AT225-26B AT225-34B AT225-52B	160.0 67.0 155.0	57.2	35.7	25.4	14.6	2.59	37.8
AT249-26 AT249-34 AT249-52	203.0 89.0 203.0	63.5	35.7	25.4	15.6	3.36	52.3
AT250-18 AT250-26 AT250-30 AT250-34 AT250-40 AT250-52	177.0 242.0 71.0 106.0 194.0 242.0	63.5	31.8	25.4	15.0	3.84	57.4
AT260-18 AT260-26 AT260-30 AT260-33 AT260-34 AT260-35 AT260-40 AT260-52	128.0 175.0 51.0 76.5 76.5 76.5 140.0 175.0	67.9	40.7	25.4	17.1	3.45	59.0
AT300-18 AT300-26 AT300-30 AT300-33 AT300-34 AT300-35 AT300-40 AT300-52	58.0 80.0 23.0 34.5 34.5 34.5 71.0 80.0	77.2	49.0	12.7	19.8	1.68	33.4



OD in 100th inches Material Mix No.

(Mean Magnetic Path Length)

Ae: (Cross Section Area) (Core Volume)





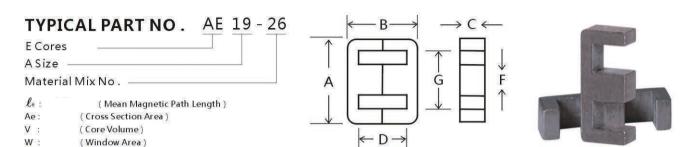
Part No .	A _∟ nH/N²	OD mm	ID mm	HT mm	ℓ. cm	$oldsymbol{A}_{\mathbf{e}}$ cm²	V cm³
AT300-18D AT300-26D AT300-30D AT300-33D AT300-34D AT300-35D AT300-40D AT300-52D	116.0 160.0 46.0 69.0 69.0 69.0 142.0 160.0	77.2	49.0	25.4	19.8	3.38	67.0
AT350-18 AT350-26 AT350-30 AT350-33 AT350-34 AT350-35 AT350-40 AT350-52	125.0 171.0 50.0 75.0 75.0 75.0 137.0 171.0	89.0	54.4	25.4	22.5	4.39	98.0
AT400-18 AT400-26 AT400-30 AT400-33 AT400-34 AT400-35 AT400-40 AT400-52	96.0 131.0 40.5 55.0 55.0 115.0 131.0	102	57.2	16.5	25.0	3.46	86.4
AT400-26B	205.0	102	57.2	25.4	25.0	5.35	133
AT400-26D AT400-30D AT400-33D AT400-34D AT400-35D AT400-40D	262.0 81.0 110.0 110.0 110.0 230.0	102	57.2	33.0	25.0	6.85	171

Iron Powder Cores

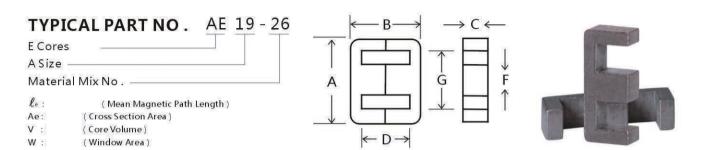
No.12/Ecores

Iron Powder Cores

No.13/Ecores



Part N o.	Mirometals Part N o.	A _L nH/N²	A mm	B mm	C mm	D mm	F mm	G mm	ℓ _e cm	A _e cm²	V cm³	W cm³
AE13-18 AE13-26 AE13-52	E49-18 E49-26 E49-52	29.0 38.0 38.0	12.7	11.1	3.18	7.93	3.18	9.53	2.86	.101	.288	.252
AE16-26 AE16-40 AE16-52	E65-26 E65-40 E65-52	58.0 51.0 56.0	16.4	16.3	4.62	12.0	4.62	11.3	3.98	.224	.861	.399
AE19-26 AE19-40 AE19-52	E75-26 E75-40 E75-52	64.0 55.0 59.0	19.1	16.1	4.75	11.6	4.75	14.3	4.20	.226	.936	.551
AE20-26 AE20-26A AE20-52A	E79-26 E80-26 E80-52	49.0 73.0 73.0	20.1	22.5 19.9	3.56 5.84	16.1 14.0	6.35 5.84	13.9 14.6	5.24 4.84	.225	1.18 1.63	.650 .613
AE25-26 AE25-52	E99-26 E99-52	96.0 96.0	25.4	25.4	7.29	17.5	7.92	17.7	6.08	.548	3.38	.908
AE25-18A AE25-26A AE25-40A AT25-52A	E100-18 E100-26 E100-40 E100-52	65.0 92.0 71.0 85.0	25.4	19.1	6.35	12.7	6.35	19.1	5.08	.403	2.05	.806
AE30-26 AE30-40 AE30-52	E118-26 E118-40 E118-52	90.0 80.0 90.0	30.1	30.1	7.06	19.9	7.06	19.9	7.14	.498	4.60	1.27
AE32-26 AE32-33 AE32-40	E125-26 E125-33 E125-40	134.0 63.5 113.0	31.8	30.8	9.60	21.2	9.60	22.5	7.45	.922	6.82	1.37
AE35-18 AE35-26	E137-18 E137-26	100.0 134.0	34.9	29.1	9.53	19.6	9.53	25.4	7.40	.907	6.72	1.55



Part N o.	Mirometals Part N o.	A _L nH/N²	A mm	B mm	C mm	D mm	F mm	G mm	ℓ. cm	A _e cm²	V cm³	W cm³
AE35-40 AE35-52	E137-40 E137-52	113.0 131.0	34.9	29.1	9.53	19.6	9.53	25.4	7.40	.907	6.72	1.55
AE37-18 AE37-26 AE37-52	E145-18 E145-26 E145-52	112.0 146.0 146.0	37.0	34.8	10.8	24.1	10.8	26.3	8.5	1.17	9.89	1.84
AE41-18 AE41-26 AE41-40 AE41-52	E162-18 E162-26 E162-40 E162-52	149.0 210.0 175.0 199.0	41.3	34.1	12.7	21.4	12.7	28.6	8.41	1.61	13.6	1.70
AE43-18 AE43-26 AE43-40 AE43-52	E168-18 E168-26 E168-40 E168-52	135.0 195.0 163.0 179.0	42.8	42.2	15.0	30.7	12.0	30.7	10.4	1.81	18.5	2.87
AE43-18A AE43-26A AE43-40A AE43-52A	E168-18A E168-26A E168-40A E168-52A	170.0 232.0 196.0 230.0	42.8	42.2	20.0	30.7	12.0	30.7	10.4	2.41	24.6	2.87
AE47-18 AE47-26 AE47-40 AE47-52	E187-18 E187-26 E187-40 E187-52	213.0 265.0 240.0 265.0	47.4	39.4	15.7	24.2	15.7	31.8	9.53	2.48	23.3	1.93
AE56-18 AE56-26 AE56-34 AE56-40 AE56-52	E220-48 E220-26 E220-34 E220-40 E220-52	196.0 275.0 136.0 240.0 262.0	56.1	55.4	20.8	38.3	17.3	38.6	13.2	3.60	47.7	4.09
AE57-18 AE57-26	E225-18 E225-26	240.0 325.0	56.9	47.6	18.9	29.0	18.9	38.1	11.5	3.58	40.8	2.78

Iron Powder Cores

(Window Area)

No.14/ECOres

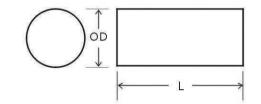
Iron Powder Cores

No.15/ Plain Cores

TYPICAL PART NO . AE 19 - 26 E Cores A Size Material Mix No . Ae: (Cross Section Area) V: (Core Volume)

Part No.	Mirometals Part N o.	A _L nH/N²	A mm	B mm	C mm	D mm	F mm	G mm	ℓ₅ cm	A _e cm²	V cm³	W cm³
AE57-40 AE57-52	E225-40 E225-52	290.0 325.0	56.9	47.6	18.9	29.0	18.9	38.1	11.5	3.58	40.8	2.78
AE77-18 AE77-26 AE77-34 AE77-40 AE77-52	E305-18 E305-26 E305-34 E305-40 E305-52	222.0 287.0 150.0 255.0 287.0	77.5	77.5	23.7	53.8	23.7	53.8	18.5	5.62	104	8.10
AE77-18A AE77-26A AE77-40A AE77-52A	E305-18A E305-26A E305-40A E305-52A	280.0 382.0 339.0 382.0	77.5	77.5	31.6	53.8	23.7	53.8	18.5	7.49	139	8.10
AE114-18 AE114-26 AE114-34 AE114-40 AE114-52	E450-40	400.0 540.0 300.0 480.0 500.0	114	92.4	34.9	57.2	34.9	79.3	22.9	12.2	280	12.7
AE114-18H AE114-52H		200.0 270.0	114	92.4	17.5	57.2	34.9	79.3	22.9	6.1	140	12.7

TYPICAL PART NO . AP	6.35×19.
Plain Cores	
OD (mm)	
L (mm)	





Part No .	A _L	OD	L
	nH/N²	mm	mm
AP3.45×19.7	7 . 6	3.45	19.7
AP4.83×19.1	12.5	4.83	19.1
AP6.35×19.1	16.0	6.35	19.1
AP6.35×25.4	16.0	6.35	25.4
AP6.48×31.8	15.0	6.48	31.8
AP6.48×38.1	14.5	6.48	38.1
AP7.95×25.4	20.0	7.95	25.4
AP7.95×31.8	20.0	7.95	31.8
AP7.95×47.6	18.0	7.95	47.6
AP9.53×25.4	25.5	9.53	25.4
AP9.53×31.8	26.5	9.53	31.8
AP9.53×38.1	25.0	9.53	38.1
AP9.53×44.5	22.5	9.53	44.5
AP12.7×25.4	30.0	12.7	25.4
AP12.7×31.8	34.5	12.7	31.8
AP12.7×38.1	33.0	12.7	38.1
AP12.7×44.5	32.0	12.7	44.5
AP12.7×50.8	31.0	12.7	50.8
AP15.9×31.8	37.5	15.9	31.8
AP15.9×38.1	41.5	15.9	38.1
AP19.1×38.1	45.0	19.1	38.1
AP19.1×60.3	49.5	19.1	60.3
AP25.4×50.8	80.0	25.4	50.8

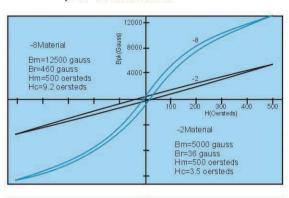
Iron Powder Cores

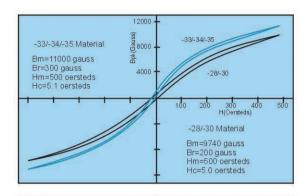
No.16/ Magnetic Characteristics

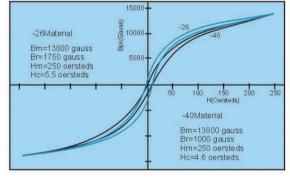
Iron Powder Cores

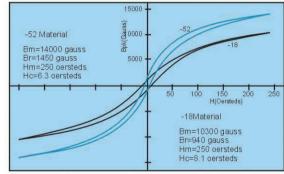
No.17/ Magnetic Characteristics

/ B-H Curves

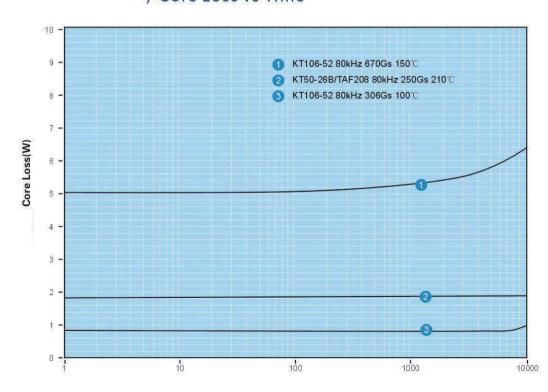




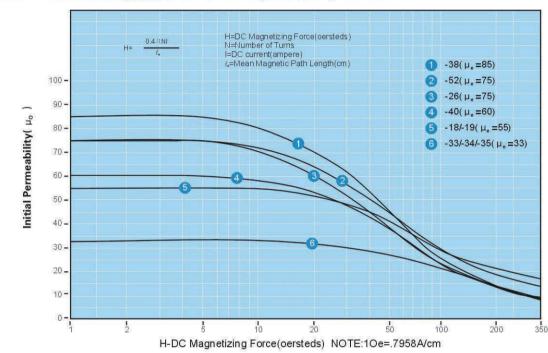




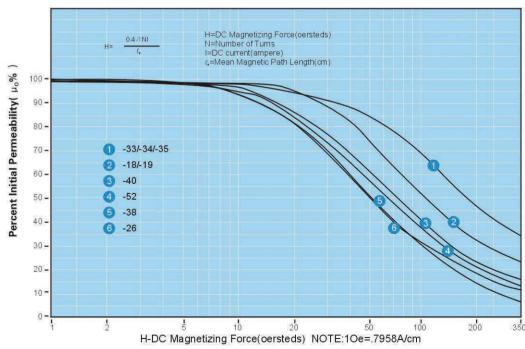
/ Core Loss vs Time



/ Initial Permeability (μ_o) vs DC Magnetizing Force



/ Percent Initial Permeability(μ_0 %) vs DC Magnetizing Force



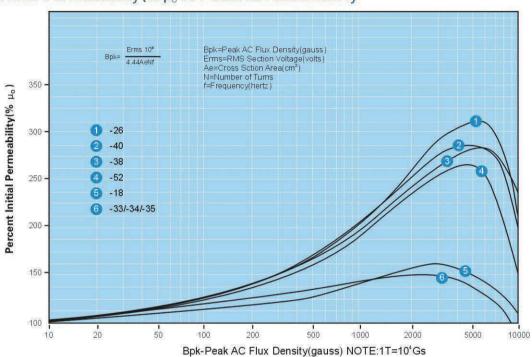
Iron Powder Cores

No.18/ Magnetic Characteristics

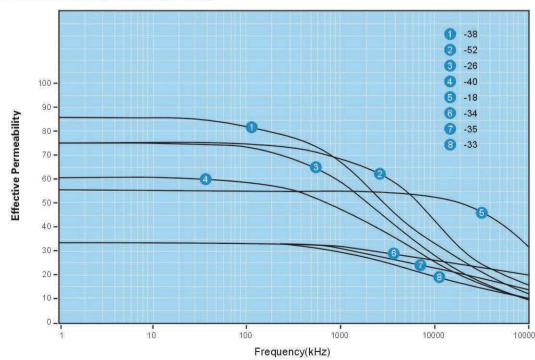
Iron Powder Cores

No.19/ Magnetic Characteristics

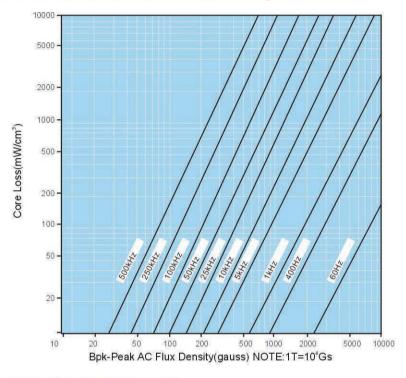
/ Percent Initial Permeability(% µo vs Peak AC Flux Density



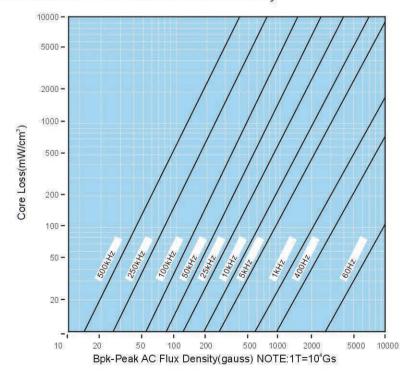
/ Effective Permeability vs Frequency



/ -18Material µ_e =55Core LOSS vs Peak AC Flux Density



/ -26Material µ_e =75Core LOSS vs Peak AC Flux Density



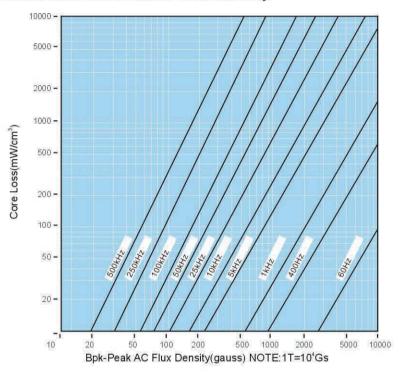
Iron Powder Cores

No.20/ Magnetic Characteristics

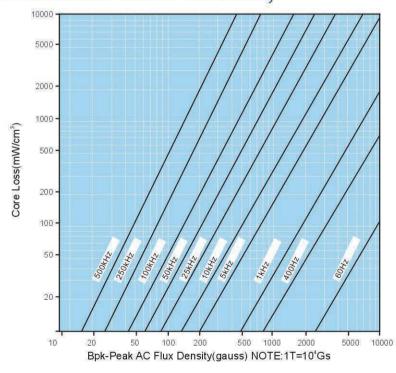
Iron Powder Cores

No.21 / Magnetic Characteristics

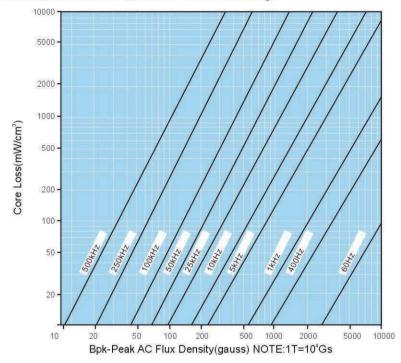
/-34Material µ_e =33Core LOSS vs Peak AC Flux Density



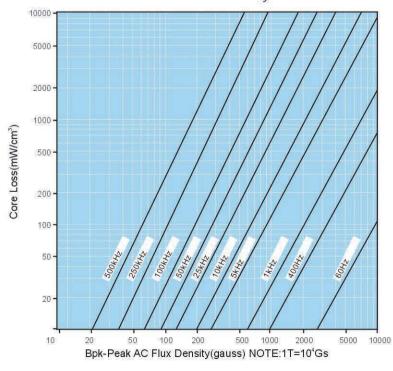
/-35Material µ_e = 33Core LOSS vs Peak AC Flux Density

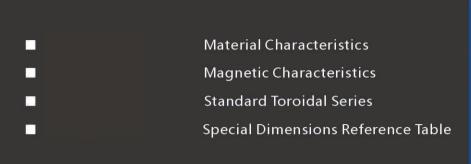


/ -40Material μ_e = 60Core LOSS vs Peak AC Flux Density



/-52Material µ_e =75Core LOSS vs Peak AC Flux Density





Alloy Magnetic Powder Cores



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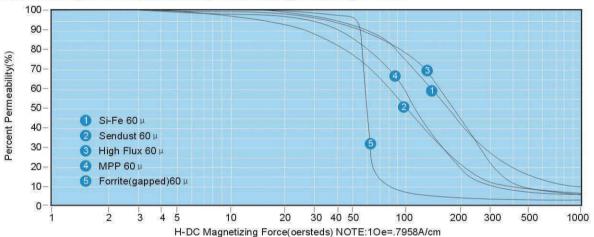
Alloy Magnetic Powdr Cores

No.1/ Magnetic Characteristics

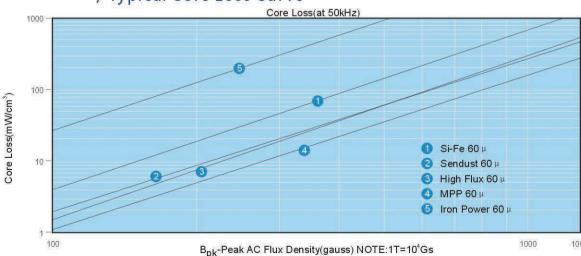
/ Basic Characteristics Reference Table

Core Materials	Core Loss	Perm.vs DC Bias	Relative Cost	Frequency range	Curie Temp.	Flux Density(sat.)	Temp. Stability
Iron Power	High	Good	Lowest	100KHz	750°C	12 , 000G	Poor
Sendust	low	Good	Low	2MHz	600°C	10,500G	Good
SI-Fe	Medium	Best	Low	1MHz	700°C	16,000G	Best
High Flux	Low	Best	High	1MHz	500°C	15,000G	Best
Мрр	Lowest	Better	Highest	1MHz	400°C	7,500G	Best
Ferrite (gapped)	Lowest	Poor	Low	1MHz	200°C	4,500G	Poor

/ Percent Change of Permeability vs.DCmagnetizing Force



/ Typical Core Loss Curve



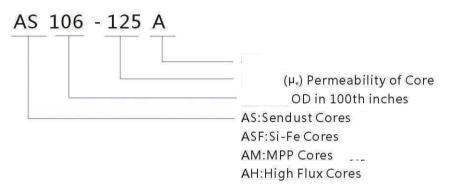
Alloy Magnetic Powdr Cores

No.2/Magnetic Characteristics

Alloy Magnetic Powdr Cores

No.1/ Magnetic Characteristics

/ Notation Method of Alloy Magnetic Powder Cores



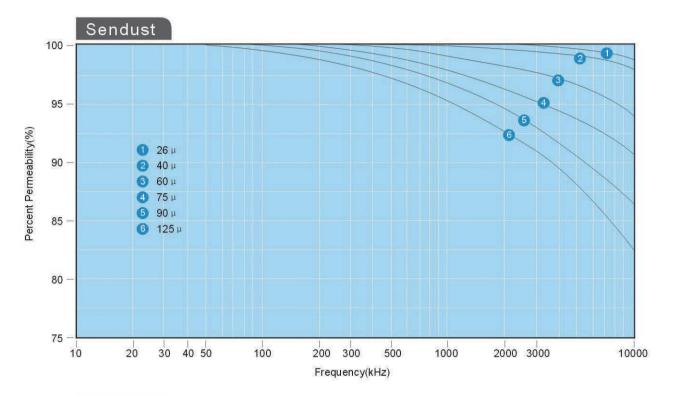
/ Magnetic Tolerance

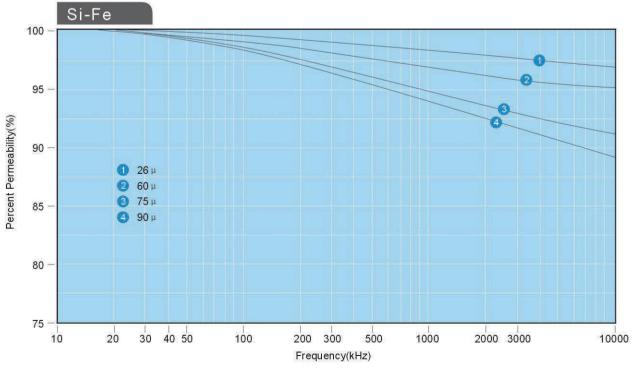
It means apparent inductance is value in mH per 1000 turns, The tolerance of apparent inductance for our standard cores is $\pm 8\%$. The Magnetic Characteristic curves shown have a typical tolerance of $\pm 10\%$, The curves on Core Loss characteristics have typical tolerance of $\pm 15\%$.

/ Inductance Versus Turns

Turns	Actual Inductance
1000 500 300 100 50	+0.0% +0.5% +1.0% +3.0% +5.0%
25	+8.5%

/ Permeability vs .Frequency





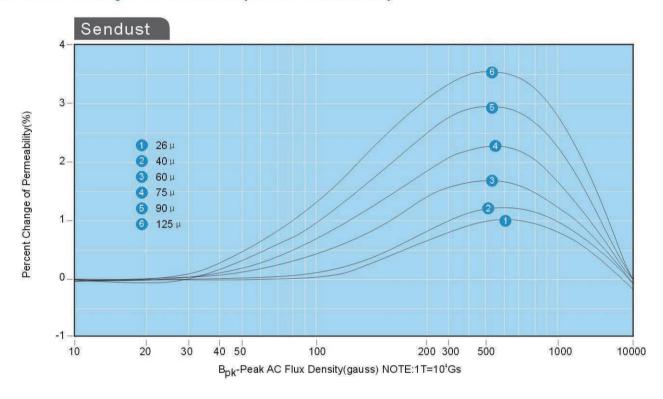
Alloy Magnetic Powdr Cores

No.2/ Magnetic Characteristics

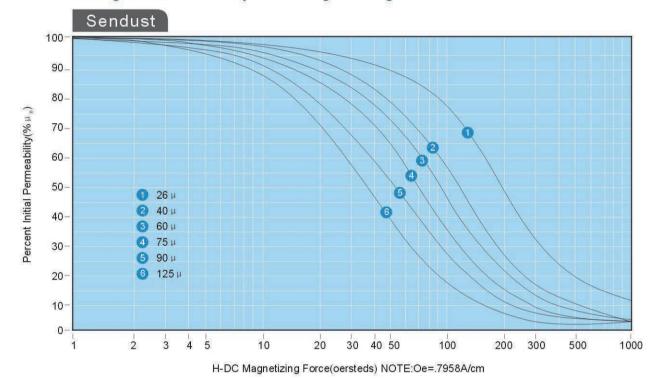
Alloy Magnetic Powdr Cores

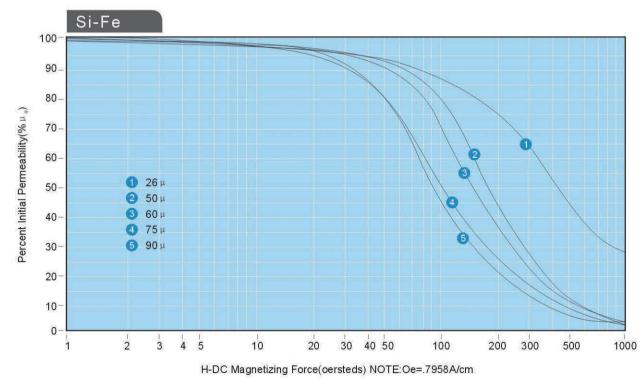
No.3/ Magnetic Characteristics

/ Percent Change of Permeability vs.AC Flux Density



/ Percent Change of Permeability vs.DCmagnetizing Force



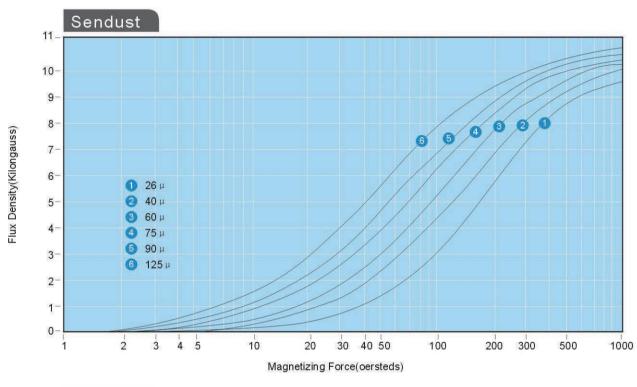


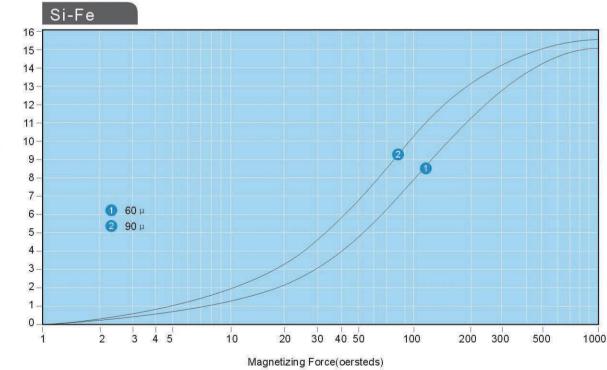
Alloy Magnetic Powdr Cores

No.4/ Magnetic Characteristics

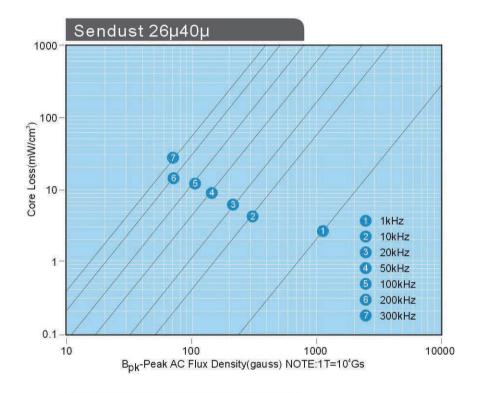
合金磁粉芯 Alloy Magnetic Powdr Cores No.5/ Magnetic Characteristics

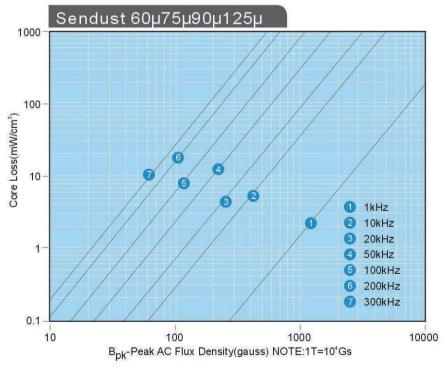
/ Normal Magnetization Curves





/ Typical Core Loss Curves



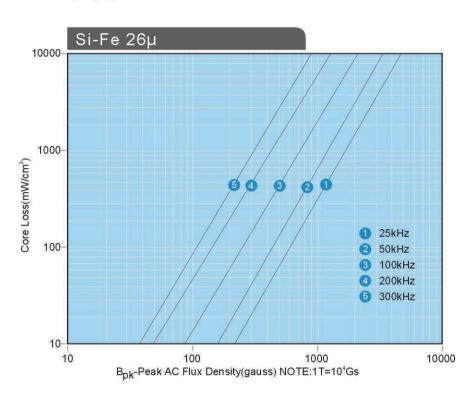


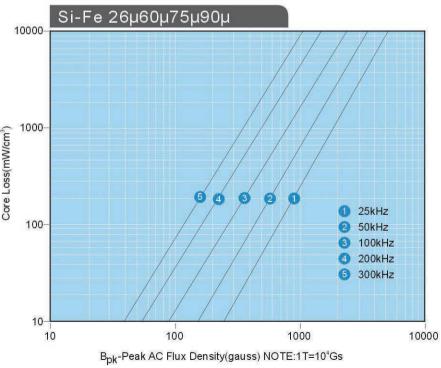
Alloy Magnetic Powdr Cores

No.6/ Magnetic Characteristics

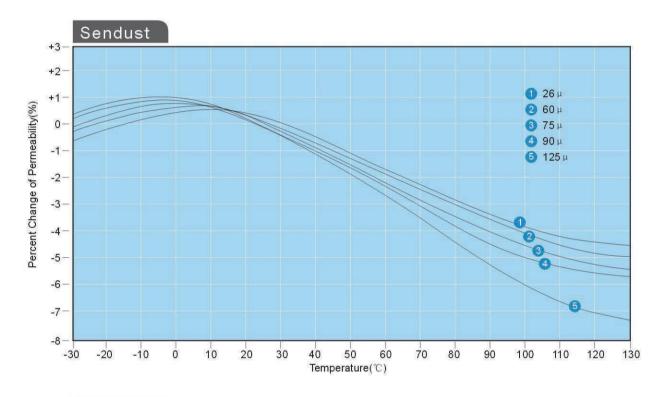
合金磁粉芯 Alloy Magnetic Powdr Cores No.7/ Magnetic Characteristics

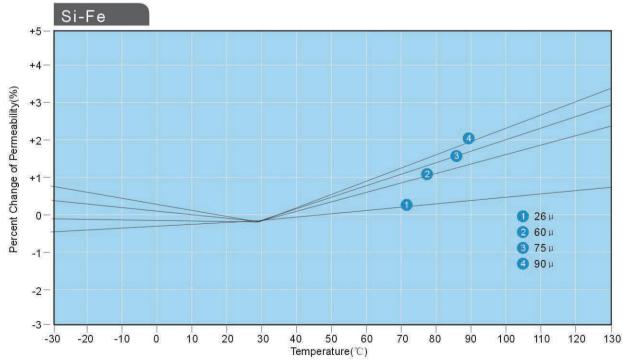
/ Typical Core Loss Curves





/ Temperature Stability





Alloy Magnetic Powdr Cores

No.1 / OD6.35×ID2.79×HT2.79

Alloy Magnetic Powdr Cores

No.2 / OD6.60×ID2.67×HT4.78

TYPICAL PART NO .AS 025-125 A

Material Mix No .

Size: OD in 100th inches

Permeability (µ_e)

Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

A_a: { (Cross Section Area) /: (Core Volume)

(Window Area)

/ Magnetic Dimensions

	Before C	Coating		After Co	oating				
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ _° cm	A _e cm²	V cm³	W cm²
6.35	2.79	2.79	6.99	2.29	3.43	1.361	0.047	0.064	0.041

/ Dimensions Table and Reference Table

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No.
	AS025-026A	26	10	MS-025026-8	-	S025-010A	-
	AS025-060A	60	24	MS-025060-8	77021-A7	S025-024A	CS063060
Sendust	AS025-075A	75	30	MS-025075-8	77825-A7	S025-030A	CS063075
0,	AS025-090A	90	36	MS-025090-8	77824-A7	S025-036A	CS063090
	AS025-125A	125	50	MS-025125-8	77020-A7	S025-050A	Cs063125
	ASF025-026A	26	10	FS-025026-8	-	-	* 1
e E	ASF025-060A	60	24	FS-025060-8		W025-024A	Ck063060
Si-Fe	ASF025-075A	75	30	FS-025075-8	<u>-</u>	-	Ck063075
	ASF025-090A	90	36	FS-025090-8	Ē	W025-036A	Ck063090

TYPICAL PART NO .AS 026-125 A

Material Mix No .	
Size: OD in 100th inches	
Permeability (µ _e) —————	
Core Grading	



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

A_a: (Cross Section Area) /: Core Volume)

W: (Window Area)

/ Magnetic Dimensions

31 W 345	Before Coating		After Co						
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	$\ell_{ extstyle }$ cm	A _e cm²	V cm³	W cm²
6.60	2.67	4.78	7.24	2.16	5.54	1.363	0.092	0.125	0.038

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS026-026A	26	21	MS-026026-8	a .	S026-021A	(a)
	AS026-060A	60	50	MS-026060-8	77271-A7	S026-050A	CS067060
Sendust	AS026-075A	75	62	MS-026075-8	77875-A7	S026-062A	CS067075
.	AS026-090A	90	74	MS-026090-8	77874-A7	S026-074A	CS067090
	AS026-125A	125	103	MS-026125-8	77270-A7	S026-103A	CS067125
	ASF026-026A	26	21	FS-026026-8	% *	æ	le:
Fe e	ASF026-060A	60	50	FS-026060-8	252	W026-050A	CK067060
Si-Fe	ASF026-075A	75	62	FS-026075-8		4	CK067075
	ASF026-090A	90	74	FS-026090-8	le:	W026-074A	Ck067090

Alloy Magnetic Powdr Cores

No.3 / OD6.60 × ID2.67 × HT2.54

TYPICAL PART NO .AS 027-125 A

Material Mix No. Size: OD in 100th inches Permeability (μ_e) Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

(Cross Section Area) (Core Volume) (Window Area)

/ Magnetic Dimensions

	Before (After Coating		oating			,,	
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ _° cm	A _e cm²	V cm³	W cm²
6.60	2.67	2.54	7.24	2.16	3.18	1.363	0.047	0.064	0.041

/ Dimensions Table and Reference Table

	Part No .	Perm. μ.	A∟ ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS027-026A	26	11	MS-027026-8	N	S026-011A	20
935	AS027-060A	60	26	MS-027060-8	77241-A7	S026-026A	CS066060
Sendust	AS027-075A	75	32	MS-027075-8	77245-A7	S026-032A	CS066075
0,	AS027-090A	90	39	MS-027090-8	77244-A7	S026-039A	CS066090
	AS027-125A	125	54	MS-027125-8	77240-A7	S026-054A	CS066125
	ASF027-026A	26	11	FS-027026-8	e	-	-
e e	ASF027-060A	60	26	FS-027060-8	=	W026-026A	CK066060
-is	ASF027-075A	75	32	FS-027075-8	٠	-	CK066075
	ASF027-090A	90	39	FS-027090-8		W026-039A	Ck066090

合金磁粉芯 Alloy Magnetic Powdr Cores

No.4 / OD7.78×ID3.96×HT3.18

TYPICAL PART NO .AS 031-125 A

Material Mix No .
Size: OD in 100th inches
Permeability (µ。)
Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length) (Cross Section Area)

Core Volume) (Window Area)

/ Magnetic Dimensions

	Before C	Coating		After C	oating				
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ _° cm	A _e cm²	V cm³	W cm²
7.87	3.96	3.18	8.51	3.43	3.81	1.787	0.061	0.109	0.092

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS031-026A	26	11	MS-031026-8	-	S031-011A	-
	AS031-060A	60	25	MS-031060-8	77031-A7	S031-025A	CS078060
Sendust	AS031-075A	75	31	MS-031075-8	77835-A7	S031-031A	CS078075
<i>3</i> ,	AS031-090A	90	37	MS-031090-8	77834-A7	S031-037A	CS078090
	AS031-125A	125	52	MS-031125-8	77030-A7	S031-052A	CS078125
	ASF031-026A	26	11	FS-031026-8	% *	is.	3 — 0
Si-Fe	ASF031-060A	60	25	FS-031060-8	15	W031-025A	CK078060
-is	ASF031-075A	75	31	FS-031075-8	1 2		CK078075
	ASF031-090A	90	37	FS-031090-8	De:	W031-037A	Ck078090

Alloy Magnetic Powdr Cores

No.5 / OD9.65 × ID4.78 × HT3.96

Alloy Magnetic Powdr Cores

No.6 / OD9.65 × ID4.78 × HT3.18

TYPICAL PART NO .AS 038-125 A

Naterial Mix No .	
ize: OD in 100th inches	
Permeability (µ。) ——————	
Core Grading ——————	



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

((((Cross Section Area)

V: (Core Volume)

(Window Area)

/ Magnetic Dimensions

	Before C	Coating		After Co	oating				
OD (Max)	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ _° cm	A _e cm²	V cm³	W cm²
9.65	4.78	3.96	10.29	4.27	4.60	2.180	0.094	0.206	0.142

/ Dimensions Table and Reference Table

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No.
	AS038-026A	26	14	MS-038026-8	N	S038-014A	3
ose.	As038-060A	60	32	MS-038060-8	77291-A7	S038-032A	CS097060
Sendust	As038-075A	75	40	MS-038075-8	77295-A7	S038-040A	CS097075
O)	As038-090A	90	48	MS-038090-8	77294-A7	S038-048A	CS097090
	As038-125A	125	66	MS-038125-8	77290-A7	S038-066A	CS097125
	ASF038-026A	26	14	FS-038026-8	e	-	-
e L	ASF038-060A	60	32	FS-038060-8	=	W038-032A	CK097060
Si-Fe	ASF038-075A	75	40	FS-038075-8	<u>.</u>	-	CK097075
	ASF038-090A	90	48	FS-038090-8		W038-048A	Ck097090

TYPICAL PART NO .AS 039-125 A

Material Mix No .	
Size: OD in 100th inches —	
Permeability (µ _e) ————	
Core Grading —	



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

 ℓ_e (Mean Magnetic Path Length)

A_a; (Cross Section Area) /: Core Volume)

(Core Volume) (Window Area)

/ Magnetic Dimensions

	Before Coating		After Coating		oating			,,	
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	ℓ _° cm	A _e cm²	V cm³	W cm²
9.65	4.78	3.18	10.29	4.27	3.81	2.180	0.075	0.163	0.1422

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS039-026A	26	11	MS-039026-8	3 ₹-	S038-011A	-
4	AS039-060A	60	25	MS-039060-8	77281-A7	S038-025A	CS096060
Sendust	AS039-075A	75	32	MS-039075-8	77885-A7	S038-032A	CS096075
O ,	AS039-090A	90	38	MS-039090-8	77884-A7	S038-038A	CS096090
	AS039-125A	125	53	MS-039125-8	77280-A7	S038-053A	CS096125
	ASF039-026A	26	11	FS-039026-8	3 4	5	-
Si-Fe	ASF039-060A	60	25	FS-039060-8	150	W038-025A	CK096060
-is	ASF039-075A	75	32	FS-039075-8	No.	*	CK096075
	ASF039-090A	90	38	FS-039090-8	De:	W038-038A	Ck096090

Alloy Magnetic Powdr Cores

No.7 / OD10.20×ID5.08×HT3.96

Alloy Magnetic Powdr Cores

No.8 / OD11.20×ID6.35×HT3.96

TYPICAL PART NO .AS 040-125 A

Material Mix No .
Size: OD in 100th inches

Permeability (µ_e)

Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

A.: (Cross Section Area)
V: (Core Volume)

(Window Area)

/ Magnetic Dimensions

	Before Coating		After Coating		oating				
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	$\ell_{ extstyle e}$ cm	A _e cm²	V cm³	W cm²
10.20	5.08	3.96	10.80	4.57	4.60	2.380	0.100	0.238	0.164

/ Dimensions Table and Reference Table

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS040-026A	26	14	MS-040026-2	E.	S040-014A	-
	AS040-060A	60	32	MS-040060-2	77041-A7	S040-032A	CS102060
Sendust	AS040-075A	75	40	MS-040075-2	77845-A7	S040-040A	CS102075
, , , , , , , , , , , , , , , , , , ,	AS040-090A	90	48	MS-040090-2	77844-A7	S040-048A	CS102090
	AS040-125A	125	66	MS-040125-2	77040-A7	S040-066A	CS102125
	ASF040-026A	26	14	FS-040026-2	***************************************	-	-
Si-Fe	ASF040-060A	60	32	FS-040060-2	三	W040-032A	CK102060
-is	ASF040-075A	75	40	FS-040075-2	Q L 4		CK102075
	ASF040-090A	90	48	FS-040090-2	**	W040-048A	Ck102090

TYPICAL PART NO .AS 044-125 A

	-		
Material Mix No.			
Size: OD in 100th inches —		= 5	
Permeability (µ _e) ————			
Core Grading —			



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

 $\ell_{\rm e}$: (Mean Magnetic Path Length)

A_a: (Cross Section Area)

Core Volume)
V: (Window Area)

/ Magnetic Dimensions

	Before Coating		Before Coating After Coating		After Coating					
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	$\ell_{ extstyle e}$ cm	A _e cm²	V cm³	W cm²	
11.20	6.35	3.96	11.89	5.89	4.72	2.690	0.090	0.243	0.273	

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS044-026A	26	11	MS-044026-2	-	S044-011A	CS112026
	AS044-060A	60	26	MS-044060-2	77131-A7	S044-026A	CS112060
Sendust	AS044-075A	75	32	MS-044075-2	77335-A7	S044-032A	CS112075
3 ,	AS044-090A	90	38	MS-044090-2	77334-A7	S044-038A	CS112090
	AS044-125A	125	53	MS-044125-2	77130-A7	S044-053A	CS112125
	ASF044-026A	26	11	FS-044026-2	*	æ.	-
- Le	ASF044-060A	60	26	FS-044060-2	1.5	W044-026A	CK112060
Si-Fe	ASF044-075A	75	32	FS-044075-2	-	-	CK112075
	ASF0440-090A	90	38	FS-044090-2	De:	W044-038A	Ck112090

Alloy Magnetic Powdr Cores

No.9 / OD12.70×ID7.26×HT4.75

Alloy Magnetic Powdr Cores

No.10/OD16.50×ID10.20×HT6.35

TYPICAL PART NO .AS 050-125 A

Material Mix No .
Size: OD in 100th inches

Permeability (µ_e)

Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

: (Mean Magnetic Path Length)

.: (Cross Section Area)

(Core Volume) (Window Area)

→ vv. (vviid

/ Magnetic Dimensions

	Before C	Coating		After Co	oating				
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ∘ cm	A _e cm²	V cm³	W cm²
12.70	7.62	4.75	13.46	6.99	5.51	3.120	0.114	0.356	0.383

/ Dimensions Table and Reference Table

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No.
	AS050-026A	26	12	MS-050026-2	N	S050-012A	CS127026
+	AS050-060A	60	27	MS-050060-2	77051-A7	S050-027A	CS127060
Sendust	AS050-075A	75	34	MS-050075-2	77055-A7	S050-034A	CS127075
S	AS050-090A	90	40	MS-050090-2	77054-A7	S050-040A	CS127090
	AS050-125A	125	56	MS-050125-2	77050-A7	S050-056A	CS127125
	ASF050-026A	26	12	FS-050026-2	÷	-	-
Si-Fe	ASF050-060A	60	27	FS-050060-2	78051-A7	W050-027A	CK127060
-is	ASF050-075A	75	34	FS-050075-2	w.	÷	CK127075
	ASF050-090A	90	40	FS-050090-2		W050-040A	Ck127090

TYPICAL PART NO .AS 065-125 A

	-	
Material Mix No .		
Size: OD in 100th inches —		
Permeability (μ _e) ————		
Core Grading —		



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

 ℓ_e : (Mean Magnetic Path Length)

A_a: (Cross Section Area)
V: { (Core Volume)
W: (Window Area)

/ Magnetic Dimensions

	Before C	Coating		After Co	oating			2 3	W cm²
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	ℓ _° cm	A _e cm²		
16.50	10.20	6.35	17.40	9.53	7.11	4.110	0.192	0.789	0.713

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS065-026A	26	15	MS-065026-2		S065-015A	CS166026
	AS065-060A	60	35	MS-065060-2	77121-A7	S065-035A	CS166060
Sendust	AS065-075A	75	43	MS-065075-2	77225-A7	S065-043A	CS166075
, v	AS065-090A	90	52	MS-065090-2	77224-A7	S065-052A	CS166090
	AS065-125A	125	72	MS-065125-2	77120-A7	S065-072A	CS166125
	ASF065-026A	26	15	FS-065026-2	' -		=
Si-Fe	ASF065-060A	60	35	FS-065060-2	78121-A7	W065-035A	CK166060
-is	ASF065-075A	75	43	FS-065075-2	84	*	CK166075
	ASF065-090A	90	52	FS-065090-2	Date:	W065-052A	Ck166090

Alloy Magnetic Powdr Cores

No.11/OD17.30×ID9.65×HT6.35

Alloy Magnetic Powdr Cores

No.12/ OD20.30×ID12.70×HT6.35

TYPICAL PART NO .AS 068-125 A

Material Mix No .
Size: OD in 100th inches

Permeability (µ_e)

Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

: (Mean Magnetic Path Length)

.: (Cross Section Area)

(Core Volume)

(Window Area)

/ Magnetic Dimensions

E	Before C	Coating		After Co	oating			A _e V cm² cm³	W cm²
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ _° cm	A _e cm²		
17.30	9.65	6.35	18.03	9.02	7.11	4.140	0.232	0.960	0.638

/ Dimensions Table and Reference Table

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS068-026A	26	19	MS-068026-2	N	S068-019A	CS172026
25	AS068-060A	60	43	MS-068060-2	77381-A7	S068-043A	CS172060
Sendust	AS068-075A	75	53	MS-068075-2	77385-A7	S068-053A	CS172075
	AS068-090A	90	64	MS-068090-2	77384-A7	S068-064A	CS172090
	AS068-125A	125	89	MS-068125-2	77380-A7	S068-089A	CS172125
	ASF068-026A	26	19	FS-068026-2	#8	-	-
Si-Fe	ASF068-060A	60	43	FS-068060-2	78381-A7	W068-043A	CK172060
-is	ASF068-075A	75	53	FS-068075-2	2 0	÷	CK172075
	ASF068-090A	90	64	FS-068090-2	R	W068-064A	Ck172090

TYPICAL PART NO. AS 080-125 A

THE TOTAL PRINTER OF THE	000	
Material Mix No .		
Size: OD in 100th inches		
Permeability (µ _e) —————		
Core Grading		



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

ℓ_e: (Mean Magnetic Path Length)

A_a: (Cross Section Area)

V: (Core Volume) W: (Window Area)

/ Magnetic Dimensions

8	Before C	Coating		After C	oating			V cm³	W cm²
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ _° cm	A _e cm²		
20.30	12.70	6.35	21.10	12.07	7.11	5.090	0.226	1.150	1.140

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS080-026A	26	14	MS-080026-2	1.50	S080-014A	CS203026
	AS080-040A	40	21	Ħ	77847-A7	£	8
Sendust	AS080-060A	60	32	MS-080060-2	77848-A7	S080-032A	CS203060
Send	AS080-075A	75	41	MS-080075-2	77211-A7	S080-041A	CS203075
	AS080-090A	90	49	MS-080090-2	77210-A7	S080-049A	CS203090
	AS080-125A	125	68	MS-080125-2	77206-A7	S080-068A	CS203125
	ASF080-026A	26	14	FS-080026-2	100		CK203026
Si-Fe	ASF080-060A	60	32	FS-080060-2	78848-A7	W080-032A	CK203060
-is	ASF080-075A	75	41	FS-080075-2		170	CK203075
	ASF080-090A	90	49	FS-080090-2	252	W080-049A	Ck203090

Alloy Magnetic Powdr Cores

No.13/ OD22.90×ID14.00×HT7.62

Alloy Magnetic Powdr Cores

No.14/ OD23.60×ID14.40×HT8.89

TYPICAL PART NO .AS 090-125 A

Material Mix No .

Size: OD in 100th inches

Permeability (µ_e)

Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

: (Mean Magnetic Path Length)

: { (Cross Section Area) : (Core Volume)

(Window Area)

/ Magnetic Dimensions

	Before C	Coating		After Co	oating			V cm³	W cm²
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ∘ cm	A _e cm²		
22.9	14.00	7.62	23.62	13.39	8.38	5.670	0.331	1.880	1.410

/ Dimensions Table and Reference Table

	Part No .	Perm. µ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No.
	AS090-026A	26	19	MS-090026-2	77312-A7	S090-019A	CS229026
	AS090-040A	40	29	*	77316-A7		-
Sendust	AS090-060A	60	43	MS-090060-2	77059-A7	S090-043A	CS229060
Send	AS090-075A	75	54	MS-090075-2	77315-A7	S090-054A	CS229075
	AS090-090A	90	65	MS-090090-2	77314-A7	S090-065A	CS229090
	AS090-125A	125	90	MS-090125-2	77310-A7	S090-090A	CS229125
	ASF090-026A	26	19	FS-090026-2	12	Į.	CK229026
Si-Fe	ASF090-060A	60	43	FS-090060-2	78059-A7	W090-043A	CK229060
-is	ASF090-075A	75	54	FS-090075-2	ă.	=	CK229075
	ASF090-090A	90	65	FS-090090-2	유프	W090-065A	Ck229090

TYPICAL PART NO .AS 092-125 A

Material Mix No .	\top	
Size: OD in 100th inches —		
Permeability (µ _e) —		
Core Grading —		



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

A_a: (Cross Section Area) V: (Core Volume)

V: (Core Volume)
W: (Window Area)

/ Magnetic Dimensions

	Before C	Coating		After Co	oating			~ 3	W cm²
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	ℓ _° cm	A _e cm²		
23.60	14.40	8.89	24.30	13.77	9.70	5.880	0.388	2.280	1.490

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No.
	AS092-026A	26	22	MS-092026-2	77352-A7	S092-022A	Cs234026
	AS092-040A	40	34	ä	77356-A7	8	*
Sendust	AS092-060A	60	51	MS-092060-2	77351-A7	S092-051A	CS234060
Seno	AS092-075A	75	63	MS-092075-2	77355-A7	S092-063A	CS234075
	AS092-090A	90	76	MS-092090-2	77354-A7	S092-076A	CS234090
	AS092-125A	125	105	MS-092125-2	77350-A7	S092-105A	CS234125
	ASF092-026A	26	22	FS-092026-2			CK234026
e e	ASF092-060A	60	51	FS-092060-2	78351-A7	W092-051A	CK234060
Si-Fe	ASF092-075A	75	63	FS-092075-2	75	0.5	CK234075
	ASF092-090A	90	76	FS-092090-2	% <u>E</u>	W092-076A	Ck234090

Alloy Magnetic Powdr Cores

No.15/ OD26.90×ID14.70×HT11.20

Alloy Magnetic Powdr Cores

No.16/ OD26.90×ID14.70×HT8.46

TYPICAL PART NO .AS 106-125 A

Material Mix No .
Size: OD in 100th inches

Permeability (µ_e)

Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

: (Mean Magnetic Path Length)

A_a: (Cross Section Area)

/: (Core Volume)

(Window Area)

/ Magnetic Dimensions

Before Coating				After Co	oating			V	3.44
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ∘ cm	A _e cm²	V cm³	W cm²
26.90	14.70	11.20	27.70	14.10	11.99	6.350	0.654	4.150	1.560

/ Dimensions Table and Reference Table

	Part No .	Perm. µ.	Α _ι ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS106-026A	26	32	MS-106026-2	77932-A7	S106-032A	Cs270026
	AS106-040A	40	50	3#	77936-A7	*	*
dust	AS106-060A	60	75	MS-106060-2	77894-A7	S106-075A	CS270060
Sendust	AS106-075A	75	94	MS-106075-2	77935-A7	S106-094A	CS270075
	AS106-090A	90	113	MS-106090-2	77934-A7	S106-113A	CS270090
	AS106-125A	125	157	MS-106125-2	77930-A7	S106-157A	CS270125
	ASF106-026A	26	32	FS-106026-2	-	<u> </u>	CK270026
Si-Fe	ASF106-060A	60	75	FS-106060-2	78894-A7	W106-075A	CK270060
-is	ASF106-075A	75	94	FS-106075-2	5	=	CK270075
	ASF106-090A	90	113	FS-106090-2	2 - ->	W106-113A	Ck270090

TYPICAL PART NO .AS 107-125 A

Material Mix No .	
Size: OD in 100th inches	
Permeability (µ。) ——————	
Core Grading	



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

ℓ_e (Mean Magnetic Path Length)

(Window Area)

A_a: (Cross Section Area) V: (Core Volume)

/ Magnetic Dimensions

Before Coating				After Coating				V	
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	ℓ _° cm	A _e cm²	cm³	W cm²
26.90	14.70	8.64	27.70	14.10	9.45	6.352	0.497	3.1551	1.5608

	Part No .	Perm. µ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS107-026A	26	26	MS-107026-2			
	AS107-060A	60	59	MS-107060-2			
Sendust	AS107-075A	75	74	MS-107075-2			
, <i>"</i> ,	AS107-090A	90	89	MS-107090-2			
	AS107-125A	125	123	MS-107125-2			
	ASF107-026A	26	26	FS-107026-2			
Si-Fe	ASF107-060A	60	59	FS-107060-2			
Si-	ASF107-075A	75	74	FS-107075-2			
	ASF107-090A	90	89	FS-107090-2			

Alloy Magnetic Powdr Cores

No.17/ OD33.00×ID19.90×HT10.70

Alloy Magnetic Powdr Cores

No.18/ OD33.00×ID19.90×HT8.76

TYPICAL PART NO .AS 130-125 A

Material Mix No .

Size: OD in 100th inches

Permeability (µ_e)

Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)
(Cross Section Area)

: (Core Volume)

(Window Area)

/ Magnetic Dimensions

Before Coating				After Co					
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ _° cm	A _e cm²	V cm³	W cm²
33.00	19.90	10.70	33.83	19.30	11.61	8.150	0.672	5.480	2.930

/ Dimensions Table and Reference Table

	Part No .	Perm. µ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS130-026A	26	28	MS-130026-2	77550-A7	S130-028A	Cs330026
	AS130-040A	40	41	**	77555-A7	8	+
Sendust	AS130-060A	60	61	MS-130060-2	77071-A7	S130-061A	CS330060
Send	AS130-075A	75	76	MS-130075-2	77553-A7	S130-076A	CS330075
	AS130-090A	90	91	MS-130090-2	77552-A7	S130-091A	CS330090
	AS130-125A	125	127	MS-130125-2	77548-A7	S130-127A	CS330125
	ASF130-026A	26	28	FS-130026-2		-	CK330026
F.	ASF130-060A	60	61	FS-130060-2	78071-A7	W130-061A	CK330060
Si-Fe	ASF130-075A	75	76	FS-130075-2	•	=	CK330075
	ASF130-090A	90	91	FS-130090-2	<u>//24</u>	W130-091A	Ck330090

TYPICAL PART NO .AS 131-125 A

Material Mix No .		
Size: OD in 100th inches	= 5	
Permeability (µ。) —————		
Core Grading		



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

 $\ell_{\rm e}$: (Mean Magnetic Path Length)

A_a: (Cross Section Area)
V: (Core Volume)
W: (Window Area)

/ Magnetic Dimensions

	Before C	Coating		After Coating					
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	ℓ _° cm	A _e cm²	cm³	W cm²
33.00	19.90	8.76	33.83	19.30	9.70	8.147	0.55116	4.4902	2.9267

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS131-026A	26	22	MS-131026-2			
	AS131-060A	60	51	MS-131060-2			
Sendust	AS131-075A	75	64	MS-131075-2			
0,	AS131-090A	90	76.5	MS-131090-2			
	AS131-125A	125	109	MS-131125-2			
	ASF131-026A	26	22	FS-131026-2			
Si-Fe	ASF131-060A	60	51	FS-131060-2			
-is	ASF131-075A	75	64	FS-131075-2			
	ASF131-090A	90	76.5	FS-131090-2			

Alloy Magnetic Powdr Cores

No.19/ OD33.00×ID19.99×HT11.8

Alloy Magnetic Powdr Cores

No.20/ OD34.30×ID23.40×HT8.89

TYPICAL PART NO .AS 132-125 A

		-
Material Mix No . —		
ize: OD in 100th inches —		
Permeability (μ。) ————		J
ore Grading —		



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

A.: (Cross Section Area)
V: (Core Volume)

(Window Area)

/ Magnetic Dimensions

٤	Before C	Coating		After Co	oating				
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ∘ cm	A _e cm²	V cm³	W cm²
33.00	19.90	11.18	33.83	19.30	11.99	8.147	0.6981	5.6870	2.9267

/ Dimensions Table and Reference Table

	Part No .	Perm. μ _e	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS132-026A	26	28	MS-132026-2			
369	AS132-060A	60	65	MS-132060-2			
Sendust	AS132-075A	75	81	MS-132075-2			
0,	AS132-090A	90	97	MS-132090-2			
	AS132-125A	125	135	MS-132125-2			
	ASF132-026A	26	28	FS-132026-2			
Si-Fe	ASF132-060A	60	65	FS-132060-2			
Si-	ASF132-075A	75	81	FS-132075-2			
	ASF132-090A	90	97	FS-132090-2			

TYPICAL PART NO .AS 135-125 A

-	
Material Mix No .	
Size: OD in 100th inches	
Permeability (μ。) —————	
Core Grading	



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

 $\ell_{\rm e}$: (Mean Magnetic Path Length)

A_a; (Cross Section Area)
V: (Core Volume)
W: (Window Area)

/ Magnetic Dimensions

Before Coating			After Coating					V	
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	ℓ₅ cm	A _e cm²	V cm³	W cm²
34.30	23.40	8.89	35.10	22.56	9.83	8.950	0.454	4.060	4.010

	Part No .	Perm. µ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS135-026A	26	16	MS-135026-2	77587-A7	S135-016A	CS343026
	AS135-040A	40	25	ž	77591-A7		*
Sendust	AS135-060A	60	38	MS-135060-2	77586-A7	S135-038A	CS343060
Send	AS135-075A	75	47	MS-135075-2	77590-A7	S135-047A	CS343075
	AS135-090A	90	57	MS-135090-2	77589-A7	S135-057A	CS343090
	AS135-125A	125	79	MS-135125-2	77585-A7	S135-079A	CS343125
	ASF135-026A	26	16	FS-135026-2	-		CK343326
Si-Fe	ASF135-060A	60	38	FS-135060-2	78586-A7	W135-038A	CK343060
-is	ASF135-075A	75	47	FS-135075-2	25	UTE	CK343075
	ASF135-090A	90	57	FS-135090-2	-	W135-057A	Ck343090

Alloy Magnetic Powdr Cores

No.21/ od35.80×Id22.40×HT10.50

Alloy Magnetic Powdr Cores

No.22/ OD39.90×ID24.10×HT14.50

TYPICAL PART NO .AS 141-125 A

Material Mix No .

Size: OD in 100th inches

Permeability (µ_e)

Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

A_a: (Cross Section Area) J: (Core Volume)

(Window Area)

/ Magnetic Dimensions

	Before Coating After Coating			Before Coating			ting After Coating					
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ∘ cm	A _e cm²	V cm³	W cm²			
35.80	22.40	10.50	36.63	21.54	11.28	8.980	0.678	6.088	3.640			

/ Dimensions Table and Reference Table

	Part No .	Perm. µ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS141-026A	26	24	MS-141026-2	77326-A7	S141-024A	CS358026
	AS141-040A	40	37	:#	77330-A7	8	
Sendust	AS141-060A	60	56	MS-141060-2	77076-A7	S141-056A	CS358060
Send	AS141-075A	75	70	MS-141075-2	77329-A7	S141-070A	CS358075
	AS141-090A	90	84	MS-141090-2	77328-A7	S141-084A	CS358090
	AS141-125A	125	117	MS-141125-2	77324-A7	S141-117A	CS358125
	ASF141-026A	26	24	FS-141026-2	7 <u>4</u> 4		Ck358026
Si-Fe	ASF141-060A	60	56	FS-141060-2	78076-A7	W141-056A	CK358060
.is	ASF141-075A	75	70	FS-141075-2	<u></u>	=	CK358075
	ASF141-090A	90	84	FS-141090-2	₹	W141-084A	Ck358090

TYPICAL PART NO .AS 157-125 A

Material Mix No .	
Size: OD in 100th inches	
Permeability (μ _ε) ——————	
Core Grading	



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

A_a: (Cross Section Area)

V: (Core Volume) W: (Window Area)

/ Magnetic Dimensions

Before Coating After Coating				oating			V		
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	ℓ _° cm	A _e cm²	V cm³	W cm²
39.90	24.10	14.50	40.72	23.30	15.37	9.840	1.072	10.500	4.270

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS157-026A	26	35	MS-157026-2	77256-A7	S157-035A	CS400026
	AS157-040A	40	54	÷	77260-A7	#	+
Sendust	AS157-060A	60	81	MS-157060-2	77083-A7	S157-081A	CS400060
Send	AS157-075A	75	101	MS-157075-2	77259-A7	S157-101A	CS400075
	AS157-090A	90	121	MS-157090-2	77258-A7	S157-121A	CS400090
	AS157-125A	125	168	MS-157125-2	77254-A7	S157-168A	CS400125
	ASF157-026A	26	35	FS-157026-2	-		Ck400026
Si-Fe	ASF157-060A	60	81	FS-157060-2	78083-A7	W157-081A	CK400060
-is	ASF157-075A	75	101	FS-157075-2	-	0.00	CK400075
	ASF157-090A	90	121	FS-157090-2	W24	W157-121A	Ck400090

Alloy Magnetic Powdr Cores

No.23/ OD46.70×ID24.10×HT18.00

Alloy Magnetic Powdr Cores

No.24/ OD46.70×ID28.70×HT15.20

TYPICAL PART NO .AS 184-125 A

Material Mix No Size: OD in 100th inches Permeability (µ_e) Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

(Cross Section Area)

(Core Volume)

(Window Area)

/ Magnetic Dimensions

	Before Coating		After Coating		oating				
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ∘ cm	A _e cm²	V cm³	W cm²
46.70	24.10	18.00	47.63	23.32	18.92	10.740	1.990	21.300	4.270

/ Dimensions Table and Reference Table

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS184-026A	26	59	MS-184026-2	77440-A7	S184-059A	CS467026
	AS184-040A	40	90	*	77431-A7	8	H
Sendust	AS184-060A	60	135	MS-184060-2	77439-A7	S184-135A	CS467060
Send	AS184-075A	75	169	MS-184075-2	77443-A7	S184-169A	CS467075
	AS184-090A	90	202	MS-184090-2	77442-A7	S184-202A	CS467090
	AS184-125A	125	281	MS-184125-2	77438-A7	S184-281A	CS467125
	ASF184-026A	26	59	FS-184026-2	-	Į.	Ck467026
Si-Fe	ASF184-060A	60	135	FS-184060-2	77439-A7	W184-135A	CK467060
-is	ASF184-075A	75	169	FS-184075-2		=	CK467075
	ASF184-090A	90	202	FS-184090-2	2 <u>0</u> 8	W184-202A	Ck467090

TYPICAL PART NO .AS 185-125 A

Material Mix No .
Size: OD in 100th inches
Permeability (µ _e)
Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

(Window Area)

(Cross Section Area) (Core Volume)

/ Magnetic Dimensions

Before Coating				After Coating					\A/
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	ℓ∘ cm	A _e cm²	V cm³	W cm²
46.70	28.70	15.20	47.63	27.89	16.13	11.630	1.340	15.580	6.110

	Part No .	Perm. µ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS185-026A	26	37	MS-185026-2	77091-A7	S184-037A	CS468026
	AS185-040A	40	57	Ħ	77095-A7	8	*
Sendust	AS185-060A	60	86	MS-185060-2	77090-A7	S184-086A	CS468060
Send	AS185-075A	75	107	MS-185075-2	77094-A7	S184-107A	CS468075
	AS185-090A	90	128	MS-185090-2	77093-A7	S184-128A	CS468090
	AS185-125A	125	178	MS-185125-2	77089-A7	S184-178A	CS468125
	ASF185-026A	26	37	FS-185026-2	-		Ck468026
Si-Fe	ASF185-060A	60	86	FS-185060-2	78090-A7	W184-086A	CK468060
-is	ASF185-075A	75	107	FS-185075-2	L.T.	175	CK468075
	ASF185-090A	90	128	FS-185090-2	% <u>=</u>	W184-128A	Ck468090

Alloy Magnetic Powdr Cores

No.25/ OD50.80×ID31.80×HT13.50

Alloy Magnetic Powdr Cores

No.26/ OD57.20×ID35.60×HT14.00

TYPICAL PART NO .AS 200-125 A

Material Mix No Size: OD in 100th inches Permeability (μ_e) Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length) (Cross Section Area)

(Core Volume)

(Window Area)

/ Magnetic Dimensions

Before Coating				After Coating					
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ。 cm	A _e cm²	V cm³	W cm²
50.80	31.80	13.50	51.69	30.94	14.35	12.730	1.251	15.930	7.500

/ Dimensions Table and Reference Table

	Part No .	Perm. µ.	A _∟ ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS200-026A	26	32	MS-200026-2	77717-A7	S200-032A	CS508026
	AS200-040A	40	49	1#	77721-A7	8	*
Sendust	AS200-060A	60	73	MS-200060-2	77716-A7	S200-073A	CS508060
Send	AS200-075A	75	91	MS-200075-2	77720-A7	S200-091A	CS508075
	AS200-090A	90	109	MS-200090-2	77719-A7	S200-109A	CS508090
	AS200-125A	125	152	MS-200125-2	77715-A7	S200-152A	CS508125
	ASF200-026A	26	32	FS-200026-2	: <u></u>	2	CK508326
Si-Fe	ASF200-060A	60	73	FS-200060-2	78716-A7	W200-073A	CK508060
.is	ASF200-075A	75	91	FS-200075-2	9	=	CK508075
	ASF200-090A	90	109	FS-200090-2	2 <u>#</u> 8	W200-109A	Ck508090

TYPICAL PART NO .AS 225-125 A

Material Mix No . —		
Size: OD in 100th inches —	s	
Permeability (µ _e) ————		
Core Grading		



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

(Cross Section Area)

(Core Volume) (Window Area)

/ Magnetic Dimensions

Before Coating				After Coating				,,	
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	ℓ _° cm	A _e cm²	V cm³	W cm²
57.20	35.60	14.00	58.00	34.70	14.86	14.300	1.444	20.650	9.480

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS225-026A	26	33	MS-225026-2	77111-A7	S225-033A	CS572026
	AS225-040A	40	50	÷	77212-A7		*
dust	AS225-060A	60	75	MS-225060-2	77110-A7	S225-075A	CS572060
Sendust	AS225-075A	75	94	MS-225075-2	77214-A7	S225-094A	CS572075
	AS225-090A	90	112	MS-225090-2	77213-A7	S225-112A	CS572090
	AS225-125A	125	156	MS-225125-2	77109-A7	S225-156A	CS572125
	ASF225-026A	26	33	FS-225026-2		a la	Ck572026
Si-Fe	ASF225-060A	60	75	FS-225060-2	78110-A7	W225-075A	CK572060
-is	ASF225-075A	75	94	FS-225075-2	150	Let	CK572075
	ASF225-090A	90	112	FS-225090-2	//E	W225-112A	Ck572090

Alloy Magnetic Powdr Cores

No.27/ OD57.20×ID26.40×HT15.20

Alloy Magnetic Powdr Cores

No.28/ OD62.0×ID32.6×HT25.0

TYPICAL PART NO .AS 226-125 A

AZE. Material Mix No .

Size: OD in 100th inches

Permeability (µ_e)

Core Grading



AZE Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

A.: (Cross Section Area)
V: (Core Volume)

: (Window Area)

/ Magnetic Dimensions

Before Coating				After Co	oating			.,	
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	ℓ _° cm	A _e cm²	V cm³	W cm²
57.20	26.40	15.20	58.00	25.60	16.10	12.500	2.290	28.60	5.140

/ Dimensions Table and Reference Table

	AZE Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No.
	AS226-026A	26	60	MS-226026-2	77191-A7	S225-060A	CS571026
	AS226-040A	40	92	10	77189-A7	8	¥
dust	AS226-060A	60	138	MS-226060-2	77192-A7	S225-138A	CS571060
Sendust	AS226-075A	75	172	MS-226075-2	77193-A7	S225-172A	CS571075
	AS226-090A	90	207	MS-226090-2	77194-A7	S225-207A	CS571090
	AS226-125A	125	287	MS-226125-2	77195-A7	S225-287A	CS571125
	ASF226-026A	26	60	FS-226026-2	824	Ţ.	Ck571026
Si-Fe	ASF226-060A	60	138	FS-226060-2	78192-A7	W225-138A	CK571060
-is	ASF226-075A	75	172	FS-226075-2	5	5	CK571075
	ASF226-090A	90	207	FS-226090-2	<u>₹</u> ₽\$	W225-207A	Ck571090

TYPICAL PART NO .AS 250-125 A

No. 102-10207 30 40 90 Nothing 8676 487-94	
AZE. Material Mix No . ——	
Size: OD in 100th inches	s
Permeability (µ _e) ————	
Core Grading	



AZE Material Mix No. AS: Sendust Cores (Black) ASE: Si-Fa Cores (Blue)

ℓ_e (Mean Magnetic Path Length)

A_a: (Cross Section Area)

V: (Core Volume) W: (Window Area)

/ Magnetic Dimensions

Before Coating				After Coating				V	\^/
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	ℓ _° cm	A _e cm²	V cm³	W cm²
62.00	32.60	25.0	63.1	31.37	26.27	14.37	3.675	52.81	7.73

	AZE Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS250-026A	26	83				CS610026
	AS250-060A	60	192				CS610060
Sendust	AS250-075A	75	240				CS610075
o,	AS250-090A	90	288				CS610090
	AS250-125A	125	400				CS610125
	ASF250-026A	26	83				Ck610026
Fe	ASF250-060A	60	192				CK610060
Si-Fe	ASF250-075A	75	240				CK610075
	ASF250-090A	90	288				Ck610090

Alloy Magnetic Powdr Cores

No.29/ od77.80×ID49.20×HT12.70

TYPICAL PART NO .AS 300-125 A

Material Mix No Size: OD in 100th inches Permeability (μ_e) Core Grading



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

(Mean Magnetic Path Length)

(Cross Section Area)

(Core Volume)

(Window Area)

/ Magnetic Dimensions

Before Coating				After Co	oating				,,,,
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	ℓ _° cm	A _e cm²	V cm³	W cm²
77.80	49.20	12.70	78.90	48.20	13.84	20.00	1.770	34.70	17.990

/ Dimensions Table and Reference Table

	Part No .	Perm. μ.	A∟ ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS300-026A	26	30	MS-300026-2	77868-A7	\$306-030A	CS777026
	AS300-040A	40	45	*	77872-A7	8	4 .
dust	AS300-060A	60	68	MS-300060-2	77867-A7	S306-068A	CS777060
Sendust	AS300-075A	75	85	MS-300075-2	2 <u>00</u> 5	S306-085A	CS777075
	AS300-090A	90	102	MS-300090-2	186	S306-102A	CS777090
	AS300-125A	125	142	MS-300125-2	(#C	S306-142A	CS777125
	ASF300-026A	26	30	FS-300026-2	Sales	Į.	Ck777026
Si-Fe	ASF300-060A	60	68	FS-300060-2	78867-A7	W306-068A	CK777060
-is	ASF300-075A	75	85	FS-300075-2	5	=	CK777075
	ASF300-090A	90	102	FS-300090-2	8 <u>0</u> 8	W306-102A	Ck777090

合金磁粉芯 Alloy Magnetic Powdr Cores

No.30/ OD77.80×ID49.20×HT15.90

TYPICAL PART NO .AS 301-125 A

Material Mix No .	
Size: OD in 100th inches	<u> </u>
Permeability (µ。) ———	
Core Grading —	



Material Mix No. AS: Sendust Cores (Black) ASF: Si-Fe Cores (Blue)

长度 (Mean Magnetic Path Length)

(Cross Section Area) (Core Volume)

(Window Area)

/ Magnetic Dimensions

	Before C	Coating		After Co	oating			V cm³	W cm²
OD (Max) mm	ID (Min) mm	Ht (Max)	OD (Max) mm	ID (Min)	Ht (Max) mm	ℓ _° cm	A _e cm²		
77.80	49.20	15.90	78.90	48.20	17.02	19.950	2.270	45.300	17.990

	Part No .	Perm. μ.	A _L ±12%	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
	AS301-026A	26	37	MS-301026-2	77908-A7	S306-037A	CS778026
	AS301-040A	40	57	¥	77912-A7	*	-
Sendust	AS301-060A	60	85	MS-301060-2	77907-A7	S306-085A	CS778060
Send	AS301-075A	75	107	MS-301075-2	-	S306-107A	CS778075
	AS301-090A	90	128	MS-301090-2	13.85	S306-128A	CS778090
	AS301-125A	125	178	MS-301125-2	-	S306-178A	CS778125
	ASF301-026A	26	37	FS-301026-2		141	Ck778026
e e	ASF301-060A	60	85	FS-301060-2	78907-A7	W306-085A	CK778060
Si-l	ASF301-075A	75	107	FS-301075-2	17	100	CK778075
	ASF301-090A	90	128	FS-301090-2	% 2 -	W306-128A	Ck778090



Alloy Magnetic Powder Cores

No.31/

/ Sendust Special Dimensions Reference Table

5	Magnetics	$A_{\scriptscriptstyle L}$	Before Coating			After Coating			A _e	$\ell_{ ext{e}}$	V
Part No .	Part No .	(nH/N²)	OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm	cm²	cm	cm³
AS065-060AE13	77121A7HT14	70	16.5	10.2	13	17.40	9.53	14	0.393	4.11	1.615
AS065-125AE13	77120A7HT14	144	16.5	10.2	13	17.40	9.53	14	0.393	4.11	1.615
AS065-060AE19	77121A7HT20	105	16.5	10.2	19	17.40	9.53	20	0.574	4.11	2.359
AS065-125AE19	77120A7HT20	216	16.5	10.2	19	17.40	9.53	20	0.574	4.11	
AS080-060AE13	77848A7HT14	64	20.3	12.7	13	21.10	12.07	14	0.462	5.09	2.352
AS080-125AE13	77206A7HT14	136	20.3	12.7	13	21.10	12.07	14	0.462	5.09	2.352
AS080-060AE19	77848A7HT20	96	20.3	12.7	19	21.10	12.07	20	0.675	5.09	3.436
AS080-125AE19	77206A7HT20	204		12.7	19	21.10	12.07	20	0.675	5.09	3.436
AS106-060AE13	77894A7HT14	88	26.9	14.7	13	27.70	14.10	14	0.759	6.35	4.820
AS106-125AE13	77930A7HT14	183	26.9	14.7	13	27.70	14.10	14	0.759	6.35	4.820
AS106-060AE14	77894A7HT15	94	26.9	14.7	14	27.70	14.10	15	0.817	6.35	5.188
AS106-075AE14	77935A7HT15	118	26.9	14.7	14	27.70	14.10	15	0.817	6.35	5.188
AS106-125AE14	77930A7HT15	197	26.9	14.7	14	27.70	14.10	15	0.817	6.35	5.188
AS106-060AE18 AS106-075AE18 AS106-125AE18	77894A7HT19 77935A7HT19 77930A7HT19	120 151 253	26.9 26.9 26.9	14.7 14.7 14.7	18 18 18	27.69 27.70 27.70	14.10 14.10 14.10	19 19 19	1.050 1.050 1.050	6.35 6.35 6.35	6.668 6.668
AS106-060AE22	77894A7HT23	150	26.9	14.7	22	27.69	14.10	23	1.284	6.35	8.153
AS106-125AE22	77930A7HT23	314	26.9	14.7	22	27.69	14.10	23	1.284	6.35	8.153
AS106-060AE33	77894A7HT34	225	26.9	14.7	33	27.69	14.10	34	1.926	6.35	12.230
AS106-125AE33	77930A7HT34	471	26.9	14.7	33	27.69	14.10	34	1.926	6.35	12.230
AS130-060AE14	77071A7HT15	80	33	19.9	14	33.83	19.30	15	0.879	8.15	7.164
AS130-075AE14	77553A7HT15	99	33	19.9	14	33.83	19.30	15	0.879	8.15	7.164
AS130-125AE14	77584A7HT15	167	33	19.9	14	33.83	19.30	15	0.879	8.15	7.164
AS130-060AE18	77071A7HT19	102	33	19.9	18	33.83	19.30	19	1.130	8.15	7.210
AS130-075AE18	77553A7HT19	128	33	19.9	18	33.83	19.30	19	1.130	8.15	9.210
AS130-125AE18	77584A7HT19	214	33	19.9	18	33.83	19.30	19	1.130	8.15	9.210
AS130-060AE21	77071A7HT22	122	33	19.9	21	33.83	19.30	22	1.139	8.15	10.750
AS130-125AE21	77584A7HT22	254	33	19.9	21	33.83	19.30	22	1.139	8.15	10.750
AS130-060AE32	77071A7HT33	183	33	19.9	22	33.83	19.30	33	2.072	8.15	16.887
AS130-125AE32	77584A7HT33	381	33	19.9	22	33.83	19.30	33	2.072	8.15	16.887

Formulas and Glossary

Wire Table

Examples of Inductor Designs

Basic Information





Basic Information

No.5 Formulas and Glossary

Magnetic Design Formulas

■ For toroidal powder cores, the effective area is the same as the cross sectional area. The effective magnetic path length can be calculated by using the following formula:

$$Q = \frac{\omega L}{R_{dc} + R_{ac} + R_{d}}$$

$$Q = \text{quality factor } \omega = (\text{Hz}) \quad L = \text{Inductance (H)} \quad \text{Rdc} = \text{DC winding resistors } (\Omega)$$

$$Rac = \text{resistance due to core loss}(\Omega) \quad R_{cd} = \text{resistance due to winding dielectric loss}(\Omega)$$

/ Core loss

Permeability, Flux density and magnetizing force

■ The total core loss at low densities is the sum of three frequency dependent losses of hysteresis loss, residual loss, and eddy current loss. The core loss is calculated from the following equation.

$$\frac{\mathsf{R}_{\mathsf{ac}}}{\mathsf{\mu}L} = aB_{m}f + cf + ef^{2}$$

$$\mathsf{Rac} = \mathsf{core} \, \mathsf{loss} \, \mathsf{resistance} \, (\Omega)$$

$$\mathsf{C} = \mathsf{residual} \, \mathsf{loss} \, \mathsf{coefficient}$$

$$\mathsf{E} = \mathsf{eddy} \, \mathsf{current} \, \mathsf{loss} \, \mathsf{coefficient}$$

Wire Table

/ Wire Table

AWG Wire	Diameter	Diameter Area Resistiv @ 20°0		Base Area		Current Capacity Amps (listed by colums of amps/cm²)			
No.	cm	Cm² (×10 ⁻³)	10 ⁻ 6Ω/ cm	cm² (×10 ⁻³)	200	400	600	800	
10	0.267	55.9	32.70	53.61	10.5	21	31.6	42.1	
11	0.238	44.5	41.37	41.68	8.34	16.7	25.0	33.3	
12	0.213	35.64	52.09	33.08	6.62	13.2	19.8	26.5	
13	0.190	28.36	65.64	26.26	5.25	10.5	15.8	21.0	
14	0.171	22.95	82.80	20.82	4.16	8.33	12.5	16.7	
15	0.153	18.37	104.3	16.51	3.30	6.61	9.91	13.2	
16	0.137	14.73	131.8	13.07	2.62	5.23	7.85	10.5	
17	0.122	11.68	165.8	10.39	2.08	4.16	6.24	8.32	
18	0.109	9.326	209.5	8.288	1.65	3.29	4.94	6.58	
19	0.0980	7.539	263.9	6.531	1.31	2.61	3.92	5.22	
20	0.0879	6.065	332.3	5.188	1.04	2.08	3.11	4.15	
21	0.0785	4.837	418.9	4.116	0.823	1.65	2.47	3.29	
22	0.0701	3.857	531.4	3.243	0.649	1.30	1.95	2.59	
23	0.0632	3.135	666.0	2.588	0.518	1.04	1.55	2.07	
24	0.0566	2.514	842.1	2.047	0.409	0.819	1.23	1.64	
25	0.0505	2.002	1062.0	1.623	0.325	0.649	0.974	1.30	
26	0.0452	1.603	1345.0	1.280	0.256	0.512	0.769	1.02	
27	0.0409	1.313	1687.6	10.21	0.204	0.409	0.613	0.817	
28	0.0366	1.0515	2142.7	0.8046	0.161	0.322	0.483	0.644	
29	0.0330	0.8548	2664.3	0.6470	0.129	0.259	0.388	0.518	
30	0.0294	0.6785	3402.2	0.5067	0.101	0.203	0.304	0.405	
31	0.0267	0.5595	4294.6	0.4013	0.0803	0.161	0.241	0.321	
32	0.0241	0.4559	5314.9	0.3242	0.0649	0.130	0.195	0.259	
33	0.0216	0.3662	6748.6	0.2554	0.0511	0.102	0.153	0.204	
34	0.0191	0.2863	8572.8	0.2011	0.0402	0.0804	0.121	0.161	
35	0.0170	0.2268	10849	0.1589	0.0318	0.0636	0.0953	0.127	
36	0.0152	0.1813	13608	0.1266	0.0253	0.0507	0.0760	0.101	
37	0.0140	0.1538	16801	0.1026	0.0205	0.0410	0.0616	0.0821	
38	0.0124	0.1207	21266	0.08107	0.0162	0.0324	0.0486	0.0649	
39	0.0109	0.0932	27775	0.06207	0.0124	0.0248	0.0372	0.0497	
40	0.0096	0.0723	35400	0.06849	0.00974	0.0195	0.0292	0.0390	
41	0.00863	0.0584	43405	0.03972	0.00795	0.0159	0.0238	0.0318	
42	0.00762	0.04558	54429	0.03166	0.00633	0.0127	0.0190	0.0253	
43	0.00685	0.03683	70308	0.02452	0.00490	0.00981	0.0147	0.0196	
44	0.00635	0.03165	85072	0.0202	0.00405	0.00811	0.0122	0.0162	