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Iron Powder Cores

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基本资料  
General Information



- 产品特性 Products Characteristics
- 环型磁芯 Toroidal Cores
- E型磁芯 E Cores
- 管状型磁芯 Plain Cores
- 磁力特性 Magnetic Characteristics

## 铁粉芯 Iron Powder Cores



## 铁粉芯 Iron Powder Cores

## No.1 / 产品特性 Product Characteristics

### 材质性能 / Material Properties

材质编号 Material Mix Number	有效磁导率 ( $\mu_r$ ) Reference Permeability	磁导率温度系数 Temp.CoeffOerm (+ppm/°C)	线性膨胀系数 CoefofinExpan (+ppm/°C)	颜色 Color Code
-18	55	385	11	Green/Red 绿/红
-19	55	650	11	Red/Green 红/绿
-26	75	825	12	Yellow/White 黄/白
-28	22	510	11	Gray/Green 灰/绿
-30	22	510	11	Green/Gray 绿/灰
-33	33	665	11	Gray/yellow 灰/黄
-34	33	565	11	Gray/Blue 灰/蓝
-35	33	665	11	Yellow/Gray 黄/灰
-38	85	955	12	Gray/Black 灰/黑
-40	60	950	11	Green/Yellow 绿/黄
-52	75	650	12	Green/Blue 绿/蓝

### 磁芯损耗对照表 / Core Loss Comparison ( mW/cm<sup>3</sup> )

Material Mix No.	60HZ 500Gs	1KHZ 1500Gs	10KHZ 500Gs	50KHZ 225Gs	100KHZ 140Gs	500KHZ 50Gs	% $\mu_r$	$\mu_{effective}$
-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

## 基本资料

General Information

# No.1 / 磁粉芯的特点和用途

features & applications

特点 / Features		用途 / Applications	
Iron Powder Cores 铁粉芯	<p>高的磁通密度 低成本 高储能</p> <p>High Maximum Flux Density Low Cost Large Energy Storage Capacity</p>	<p>高频抗流器 功率转换输出抗流器</p> <p>High Frequency Chokes Output Chokes for Switching Power Supplies</p> <p>EMI噪音滤波器 脉冲变压器 DC输出/输入滤波器 调光抗流器 功率因数修正电感器 连续态返驰电感器</p> <p>Conducted EMI Noise Filters Pulse Transformers DC Output/Input Filters light Dimmer Chokes Power Factor Correction Inductors Continuous-mode Fly-back Inductors</p>	
Sendust Cores 铁硅铝磁粉芯	<p>比铁粉芯损耗更低 良好的直流偏置特性 接近于零的磁致伸缩系数 性价比高</p> <p>Core losses Significantly lower Than iron Powder Cores Good DC bias characteristics in line noise filter Near zero magnetostriction coefficient switching regulator inductor High price ratio Pulse and FLY-back transformer</p>	<p>电源调制电感器 线路噪音滤波器 脉冲变压器 回扫变压器 PFC抗流器</p> <p>Switching Regulator Inductors In-line Noise Filters Pulse Transformers Fly-back Transformers PFC Chokes</p>	
Si-Fercores 铁硅磁粉芯	<p>优异的DC偏流特性 高达16000高斯的饱和磁通密度 良好的温度稳定性 高储能 接近于零的磁致伸缩系数 无高温老化问题 成本低，在很多领域可以取代高磁通磁粉芯</p> <p>Excellent DC Characteristics High Bmax of 16000 Gauss 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</p>	<p>高电流电源抗流器（超过50A） 高储能功率电感（太阳能电池，风能等） 用于开关电源的功率输出电感 平滑滤波电感器 UPS电源</p> <p>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</p>	

## 基本资料

General Information

# No.2 / 表面涂层

Surface Coating

本公司生产的环形磁芯涂有树脂涂层，各种涂层在60Hz下的最小介电强度为500Vrms.也可以根据客户的要求提高介电质的强度，涂层可抵抗大多数清洗剂的擦洗，但过度某些溶剂会产生不良影响。E型和P型磁芯均经过防锈处理，以防止锈蚀。

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.

## 基本资料

General Information

# No.3 / 温度特性

Temperature Characteristic

铁粉芯一般适用于-55°C—+125°C的温度范围，当磁芯处于较高的温度环境中，会使电感和品质因数（Q）永久性的降低。这是由于其在制造过程中使用了有机粘结剂，如环氧树脂等；当使用温度超过150°C时，其材料内部的树脂会恶化，使磁芯的损耗增大，降低铁粉芯的使用寿命。这种特性的偏离过程取决于时间、温度、磁芯大小、频率和磁通密度等。

Common working temperature for powder core is between -55°C to 125°C. When the working environment temperature rises above 150°C, the organic adhesive (usually epoxy resin) will begin to decompose, resulting in the degradation 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.

## 基本资料

General Information

# No.4 / 运输和存放

Handling Storage Considerations

我们建议使用前的仓储期间不要打开原产品包装，存放点应有防雨和防潮设施。铁粉磁芯比其他产品重，故需特别留意每箱货物的重量。切勿压叠超过5箱货物，以免压碎底层货物。由于铁粉磁芯是有一定高密度的产品，故其包装是以磁芯重量为准，任何不正确的手动或碰撞，都可能导致磁芯损坏。如果磁芯触击一个坚硬的平面，磁芯表面涂层会出现裂痕或碎裂。最后，和大多数磁性物一样，铁粉磁芯需要存放在没有金属剃齿、油、溶剂、污垢、灰尘和酸性液体的地方。

We recommend the cores remain in the original factory packaging and be 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 consideration must be given to the weight of the carton. Do not stack more than 5 cartons high to avoid crushing the bottom cartons. Please be aware the cores are quite dense and package size can be deviously heavy. Damage will occur to cores if boxes 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 dust and acids.

## 铁粉芯

Iron Powder Cores

# No.1 / 产品特性

Product Characteristics

### 材质性能 / Material Properties

材质编号 Material Mix Number	有效磁导率 ( $\mu_r$ ) Reference Permeability	磁导率温度系数 Temp.CoeffOerm ( +ppm/C)	线性膨胀系数 CoefofinExpan ( +ppm/C)	颜色 Color Code
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-34	33	565	11	Gray/Blue 灰/蓝
-35	33	665	11	Yellow/Gray 黄/灰
-38	85	955	12	Gray/Black 灰/黑
-40	60	950	11	Green/Yellow 绿/黄
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Material Mix No.	60HZ 500Gs	1KHZ 1500Gs	10KHZ 500Gs	50KHZ 225Gs	100KHZ 140Gs	500KHZ 50Gs	% $\mu_r$	$\mu_{effective}$
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-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

## 铁粉芯 Iron Powder Cores

## No.2 / 产品特性 Product Characteristics

### 温度特性 / TEMPERATURE EFFECTS

铁粉芯一般适用于-55℃~+125℃的温度范围,当磁芯处于较高的温度环境中,会使电感和品质因数(Q)永久性的降低,这是由于其在制造过程中使用了有机粘剂,如环氧树脂等;当使用温度超过150℃时,其材料内部的树脂会恶化,使磁芯的损耗增大,降低铁粉芯的使用寿命,这种特性的偏离过程取决于时间、温度、磁芯大小、频率和磁通密度等。

Common working temperature for powder core is between -55℃~+125℃.when the working environment temperature rises above 150℃, the organic adhesive (usually epoxy resin) will begin to decompose, resulting in the degradation 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.

### 磁性偏差 / Magnetic Tolerance

Material (Mix No.)	-2	-8	-14	-18	-19	-26	-28	-30	-33	-34	-35	-38	-40	-45	-52
A <sub>e</sub> Tolerance	±5%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%	±10%

磁芯是按列出的A<sub>e</sub>值制造的,每种材料的磁导率仅作参考。在任何情况下,A<sub>e</sub>值均以在10kHz的频率下0.0高斯(1mT)的AC通量密度峰值为依据。环型磁芯是以均匀分隔的完全单层绕组作测试的,以尽量降低漏磁的影响。以非均匀分布而少圈数的铁粉磁芯作测试会产生比预期要大的电感读数。E型磁芯以100圈作为测试标准。磁导率特性曲线,均有±10%的典型宽限度,而磁芯损耗特征的曲线就有±15%的典型宽限度。

The cores are manufactured to the A<sub>e</sub> values listed; the permeability for each material is for reference only in all cases. The A<sub>e</sub> 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 Cores are tested with 100 turns. The Magnetic Characteristic curves shown have a typical tolerance of ±10%. The curves on core loss characteristics have a typical tolerance of ±15%.

### 材料用途 / 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	X	
60Hz Differential-mode EML line Chokes						X						X	X	X	X
Dc Chokes: <50kHz or low E <sub>T</sub> (Buck/Boost)							X	X	X	X	X	X	X	X	
Dc Chokes: ≥50kHz or higher E <sub>T</sub> (Buck/Boost)		X	X	X	X		X	X	X	X	X				X
Power Factor Correction Chokes: <50kHz						X	X	X	X	X	X		X		
Power Factor Correction Chokes: ≥50kHz	X	X	X	X	X		X	X	X	X	X				
Resonant Inductors: ≥50kHz	X		X												

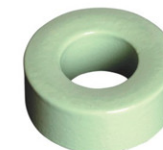
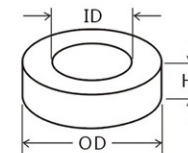
## 铁粉芯 Iron Powder Cores

## No.3 / 环形磁芯 Toroidal Cores

### TYPICAL PART NO. AT 106-52

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

ℓ<sub>m</sub>: 平均磁路长度 (Mean Magnetic Path Length)  
A<sub>e</sub>: 横截面积 (Cross Section Area)  
V: 磁芯体积 (Core Volume)



AZE Part No.	A <sub>e</sub> nH/N <sup>2</sup>	OD mm	ID mm	HT mm	ℓ <sub>m</sub> cm	A <sub>e</sub> cm <sup>2</sup>	V cm <sup>3</sup>
AT25-18	17.0	6.48	3.05	2.44	1.50	.037	.055
AT25-26	24.5						
AT25-40	20.5						
AT25-52	23.0						
AT26-18	41.5	6.73	2.67	4.83	1.47	.090	.133
AT26-26	57.0						
AT26-52	56.0						
AT27-18	18.5	7.11	3.84	3.25	1.71	.047	.080
AT27-26	27.5						
AT27-52	25.5						
AT30-18	22.0	7.80	3.84	3.25	1.84	.060	.110
AT30-26	33.5						
AT30-40	28.0						
AT30-52	30.5						
AT32-52	35.0	8.31	4.29	4.01	1.96	.073	.144
AT37-18	19.0	9.53	5.21	3.25	2.31	.064	.147
AT37-19	19.0						
AT37-26	28.5						
AT37-40	24.5						
AT37-52	26.0						
AT38-18	36.0	9.53	4.45	4.83	2.18	.114	.248
AT38-26	49.0						
AT38-40	41.5						
AT38-52	49.0						
AT40-26	36.0	10.2	5.21	4.14	2.41	.093	.223
AT40-52	36.0						

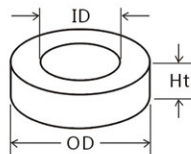
## 铁粉芯 Iron Powder Cores

## No.4 / 环形磁芯 Toroidal Cores

### TYPICAL PART NO. AT 106-52

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

$\ell_m$  : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$  : 横截面积 (Cross Section Area)  
 $V$  : 磁芯体积 (Core Volume)



AZE Part No.	$A_c$ nH/N <sup>2</sup>	OD mm	ID mm	HT mm	$\ell_m$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>
AT44-18	25.5	11.2	5.28	4.04	2.68	.099	.266
AT44-26	37.0						
AT44-40	31.0						
AT44-52	35.0						
AT44-52C	55.0	11.2	5.82	6.35	2.68	.157	.419
AT44-52D	70.0	11.2	5.82	8.59	2.68	.212	.567
AT50-18	24.0	12.7	7.70	4.83	3.19	.112	.358
AT50-26	33.0						
AT50-38	37.5						
AT50-40	29.5						
AT50-52	33.0						
AT50-18B	32.0						
AT50-26B	43.5	12.7	7.70	6.35	3.19	.148	.471
AT50-38B	49.5						
AT50-40B	38.5						
AT50-52B	43.5						
AT50-26C	61.0	12.7	7.70	8.51	3.19	.200	.637
AT50-26D	72.0	12.7	7.70	9.53	3.19	.223	.711
AT50-40D	59.0						
AT50-52D	66.0						
AT51-18C	55.0	12.7	5.08	6.35	2.79	.223	.622
AT51-26C	83.0						
AT51-40C	67.0						
AT51-52C	75.0						
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

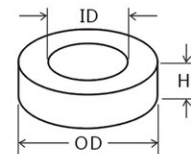
## 铁粉芯 Iron Powder Cores

## No.5 / 环形磁芯 Toroidal Cores

### TYPICAL PART NO. AT 106-52

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

$\ell_m$  : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$  : 横截面积 (Cross Section Area)  
 $V$  : 磁芯体积 (Core Volume)



AZE Part No.	$A_c$ nH/N <sup>2</sup>	OD mm	ID mm	HT mm	$\ell_m$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>
AT60-18	34.5	15.2	8.53	5.94	3.74	.178	.699
AT60-26	50.0						
AT60-40	41.5						
AT60-52	47.0						
AT60-26D	97.0	15.2	8.53	11.9	3.74	.374	1.400
AT60-52D	94.0						
AT68-18	29.0	15.2	9.40	4.83	4.23	.179	.759
AT68-26	43.5						
AT68-38	45.0						
AT68-40	35.0						
AT68-52	40.0						
AT68-18A	39.5						
AT68-26A	58.0	17.5	9.40	6.35	4.23	.242	1.03
AT68-38A	61.0						
AT68-40A	47.0						
AT68-52A	54.0						
AT68-26D	87.0	17.5	9.40	9.53	4.23	.358	1.52
AT68-40D	70.0						
AT68-52D	80.0						
AT72-18	60.0	18.3	7.11	6.60	4.01	.349	1.40
AT72-26	90.0						
AT72-40	71.0						
AT72-52	82.0						
AT80-18	31.0	20.2	12.6	6.35	5.14	.231	1.19
AT80-26	46.0						
AT80-38	48.0						
AT80-40	39.5						
AT80-52	42.0						

## 铁粉芯 Iron Powder Cores

## No.6 / 环形磁芯 Toroidal Cores

### TYPICAL PART NO. AT 106-52

AZE Toroidal Cores

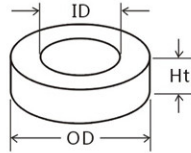
OD in 100th inches

Material Mix No.

$\ell_m$  : 平均磁路长度 (Mean Magnetic Path Length)

$A_c$  : 横截面积 (Cross Section Area)

$V$  : 磁芯体积 (Core Volume)



## 铁粉芯 Iron Powder Cores

## No.7 / 环形磁芯 Toroidal Cores

### TYPICAL PART NO. AT 106-52

AZE Toroidal Cores

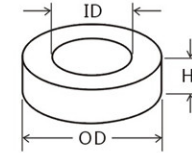
OD in 100th inches

Material Mix No.

$\ell_m$  : 平均磁路长度 (Mean Magnetic Path Length)

$A_c$  : 横截面积 (Cross Section Area)

$V$  : 磁芯体积 (Core Volume)



AZE Part No.	$A_c$ nH/N <sup>2</sup>	OD mm	ID mm	HT mm	$\ell_m$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>
AT80-18B	46.5	20.2	12.6	9.53	5.14	.347	1.78
AT80-26B	71.0						
AT80-38B	72.0						
AT80-40B	59.0						
AT80-52B	63.0						
AT80-26D	92.0	20.2	12.6	12.7	5.14	.453	2.33
AT80-40D	79.0						
AT80-52D	83.0						
AT90-18	47.0	22.9	14.0	9.53	5.78	.395	2.28
AT90-26	70.0						
AT90-38	73.0						
AT90-40	57.0						
AT90-52	64.0						
AT94-18	42.0	23.9	14.2	7.92	5.97	.362	2.16
AT94-26	60.0						
AT94-38	65.0						
AT94-40	49.0						
AT94-52	57.0						
AT106-18	70.0	26.9	14.5	11.1	6.49	.659	4.28
AT106-26	93.0						
AT106-28	30.0						
AT106-30	30.0						
AT106-33	40.0						
AT106-34	40.0						
AT106-35	40.0						
AT106-38	108.0						
AT106-40	81.0						
AT106-52	95.0						

AZE Part No.	$A_c$ nH/N <sup>2</sup>	OD mm	ID mm	HT mm	$\ell_m$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>
AT106-18A	49.0	26.9	14.5	7.92	6.49	.461	3.00
AT106-26A	67.0						
AT106-40A	58.0						
AT106-52A	67.0						
AT106-18B	91.0	26.9	14.5	14.6	6.49	.858	5.57
AT106-26B	124.0						
AT106-40B	106.0						
AT106-52B	124.0						
AT130-18	58.0	33.0	19.8	11.1	8.28	.698	5.78
AT130-26	81.0						
AT130-28	25.0						
AT130-30	25.0						
AT130-33	33.5						
AT130-34	33.5						
AT130-35	33.5						
AT130-38	90.0						
AT130-40	69.0						
AT130-52	79.0						
AT130-26A	41.0	33.0	19.8	5.72	8.28	.361	2.99
AT130-40A	34.0						
AT131-18	79.0	33.0	16.3	11.1	7.72	.885	6.84
AT131-26	116.0						
AT131-33	46.5						
AT131-34	46.5						
AT131-35	46.5						
AT131-40	93.0						
AT131-52	108.0						
AT132-26	103.0	33.0	17.8	11.1	7.96	.805	6.41
AT132-40	83.0						
AT132-52	95.0						

## 铁粉芯 Iron Powder Cores

## No.8 / 环形磁芯 Toroidal Cores

### TYPICAL PART NO. AT 106-52

AZE Toroidal Cores

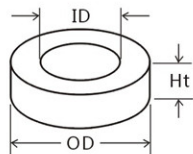
OD in 100th inches

Material Mix No.

$\ell_m$  : 平均磁路长度 (Mean Magnetic Path Length)

$A_c$  : 横截面积 (Cross Section Area)

V : 磁芯体积 (Core Volume)



AZE Part No.	$A_c$ nH/N <sup>2</sup>	OD mm	ID mm	HT mm	$\ell_m$ cm	$A_c$ cm <sup>2</sup>	V cm <sup>3</sup>
AT141-26	75.0	35.9	22.4	10.5	9.14	.674	6.16
AT141-40	60.0						
AT141-52	69.0						
AT150-18	65.0	38.4	21.5	11.1	9.38	.887	8.31
AT150-26	96.0						
AT150-40	78.0						
AT150-52	89.0						
AT150-26A	66.0	38.4	21.5	8.26	9.38	.657	6.16
AT150-38A	74.5						
AT157-18	73.0	39.9	24.1	14.5	10.1	1.06	10.7
AT157-26	100.0						
AT157-28	31.5						
AT157-30	31.5						
AT157-33	43.5						
AT157-34	43.5						
AT157-35	43.5						
AT157-38	112.0						
AT157-40	86.0						
AT157-52	99.0						
AT175-18	82.0	44.5	27.2	16.5	11.2	1.34	15.0
AT175-26	105.0						
AT175-40	90.0						
AT175-52	105.0						
AT184-18	116.0	46.7	24.1	18.0	11.2	1.88	21.0
AT184-26	169.0						
AT184-28	51.0						
AT184-30	51.0						
AT184-33	70.0						
AT184-34	70.0						

## 铁粉芯 Iron Powder Cores

## No.9 / 环形磁芯 Toroidal Cores

### TYPICAL PART NO. AT 106-52

AZE Toroidal Cores

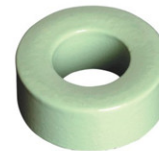
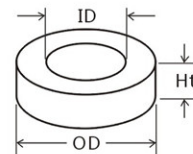
OD in 100th inches

Material Mix No.

$\ell_m$  : 平均磁路长度 (Mean Magnetic Path Length)

$A_c$  : 横截面积 (Cross Section Area)

V : 磁芯体积 (Core Volume)



AZE Part No.	$A_c$ nH/N <sup>2</sup>	OD mm	ID mm	HT mm	$\ell_m$ cm	$A_c$ cm <sup>2</sup>	V cm <sup>3</sup>
AT184-35	70.0	46.7	24.1	18.0	11.2	1.88	21.0
AT184-40	143.0						
AT184-52	159.0						
AT200-18	67.0	50.8	31.8	14.0	13.0	1.27	16.4
AT200-26	92.0						
AT200-33	37.0						
AT200-34	37.0						
AT200-35	37.0						
AT200-40	79.0						
AT200-52	92.0						
AT200-18B	120.0	50.8	31.8	25.4	13.0	2.32	30.00
AT200-26B	160.0						
AT200-30B	51.0						
AT200-35B	74.0						
AT200-40B	142.0						
AT200-52B	155.0						
AT201-18	164.0	50.8	24.1	22.2	11.8	2.81	33.2
AT201-26	224.0						
AT201-40	194.0						
AT201-52	224.0						
AT224-26C	155.0	57.2	31.8	19.1	14.0	2.31	32.2
AT224-52C	155.0						
AT225-18	67.0	57.2	35.7	14.0	14.6	1.42	20.7
AT225-26	98.0						
AT225-30	28.0						
AT225-33	37.0						
AT225-34	37.0						
AT225-35	37.0						



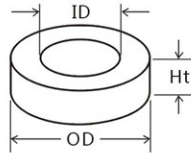
## 铁粉芯 Iron Powder Cores

## No.10 / 环形磁芯 Toroidal Cores

### TYPICAL PART NO. AT 106-52

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

$\ell_m$  : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$  : 横截面积 (Cross Section Area)  
 $V$  : 磁芯体积 (Core Volume)



AZE Part No.	$A_c$ nH/N <sup>2</sup>	OD mm	ID mm	HT mm	$\ell_m$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>
AT225-40	78.0	57.2	35.7	14.0	14.6	1.42	20.7
AT225-52	92.0						
AT225-26B	160.0	57.2	35.7	25.4	14.6	2.59	37.8
AT225-34B	67.0						
AT225-52B	155.0						
AT249-26	203.0	63.5	35.7	25.4	15.6	3.36	52.3
AT249-34	89.0						
AT249-52	203.0						
AT250-18	177.0	63.5	31.8	25.4	15.0	3.84	57.4
AT250-26	242.0						
AT250-30	71.0						
AT250-34	106.0						
AT250-40	194.0						
AT250-52	242.0						
AT260-18	128.0						
AT260-26	175.0						
AT260-30	51.0						
AT260-33	76.5						
AT260-34	76.5						
AT260-35	76.5						
AT260-40	140.0						
AT260-52	175.0						
AT300-18	58.0	77.2	49.0	12.7	19.8	1.68	33.4
AT300-26	80.0						
AT300-30	23.0						
AT300-33	34.5						
AT300-34	34.5						
AT300-35	34.5						
AT300-40	71.0						
AT300-52	80.0						

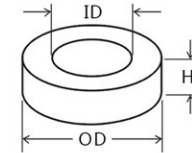
## 铁粉芯 Iron Powder Cores

## No.11 / 环形磁芯 Toroidal Cores

### TYPICAL PART NO. AT 106-52

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

$\ell_m$  : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$  : 横截面积 (Cross Section Area)  
 $V$  : 磁芯体积 (Core Volume)



AZE Part No.	$A_c$ nH/N <sup>2</sup>	OD mm	ID mm	HT mm	$\ell_m$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>
AT300-18D	116.0	77.2	49.0	25.4	19.8	3.38	67.0
AT300-26D	160.0						
AT300-30D	46.0						
AT300-33D	69.0						
AT300-34D	69.0						
AT300-35D	69.0						
AT300-40D	142.0						
AT300-52D	160.0						
AT350-18	125.0	89.0	54.4	25.4	22.5	4.39	98.0
AT350-26	171.0						
AT350-30	50.0						
AT350-33	75.0						
AT350-34	75.0						
AT350-35	75.0						
AT350-40	137.0						
AT350-52	171.0						
AT400-18	96.0	102	57.2	16.5	25.0	3.46	86.4
AT400-26	131.0						
AT400-30	40.5						
AT400-33	55.0						
AT400-34	55.0						
AT400-35	55.0						
AT400-40	115.0						
AT400-52	131.0						
AT400-26B	205.0	102	57.2	25.4	25.0	5.35	133
AT400-26D	262.0	102	57.2	33.0	25.0	6.85	171
AT400-30D	81.0						
AT400-33D	110.0						
AT400-34D	110.0						
AT400-35D	110.0						
AT400-40D	230.0						

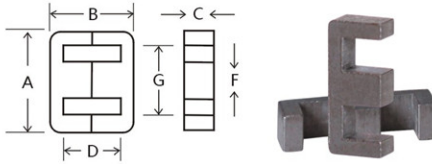
## 铁粉芯 Iron Powder Cores

## No.12/ E型磁芯 E Cores

TYPICAL PART NO. AE 19 - 26

AZE E Cores \_\_\_\_\_  
A Size \_\_\_\_\_  
Material Mix No. \_\_\_\_\_

$\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
Ae: 横截面积 (Cross Section Area)  
V: 磁芯体积 (Core Volume)  
W: 窗口面积 (Window Area)



AZE Part No.	Mirometals Part No.	$A_i$ , nH/N <sup>2</sup>	A mm	B mm	C mm	D mm	F mm	G mm	$\ell$ cm	$A_e$ cm <sup>2</sup>	V cm <sup>3</sup>	W cm <sup>2</sup>
AE13-18	E49-18	29.0										
AE13-26	E49-26	38.0	12.7	11.1	3.18	7.93	3.18	9.53	2.86	.101	.288	.252
AE13-52	E49-52	38.0										
AE16-26	E65-26	58.0										
AE16-40	E65-40	51.0	16.4	16.3	4.62	12.0	4.62	11.3	3.98	.224	.861	.399
AE16-52	E65-52	56.0										
AE19-26	E75-26	64.0										
AE19-40	E75-40	55.0	19.1	16.1	4.75	11.6	4.75	14.3	4.20	.226	.936	.551
AE19-52	E75-52	59.0										
AE20-26	E79-26	49.0	20.1	22.5	3.56	16.1	6.35	13.9	5.24	.225	1.18	.650
AE20-26A	E80-26	73.0										
AE20-52A	E80-52	73.0	20.2	19.9	5.84	14.0	5.84	14.6	4.84	.333	1.63	.613
AE25-26	E99-26	96.0	25.4	25.4	7.29	17.5	7.92	17.7	6.08	.548	3.38	.908
AE25-52	E99-52	96.0										
AE25-18A	E100-18	65.0										
AE25-26A	E100-26	92.0										
AE25-40A	E100-40	71.0	25.4	19.1	6.35	12.7	6.35	19.1	5.08	.403	2.05	.806
AT25-52A	E100-52	85.0										
AE30-26	E118-26	90.0										
AE30-40	E118-40	80.0	30.1	30.1	7.06	19.9	7.06	19.9	7.14	.498	4.60	1.27
AE30-52	E118-52	90.0										
AE32-26	E125-26	134.0										
AE32-33	E125-33	63.5	31.8	30.8	9.60	21.2	9.60	22.5	7.45	.922	6.82	1.37
AE32-40	E125-40	113.0										
AE35-18	E137-18	100.0										
AE35-26	E137-26	134.0	34.9	29.1	9.53	19.6	9.53	25.4	7.40	.907	6.72	1.55

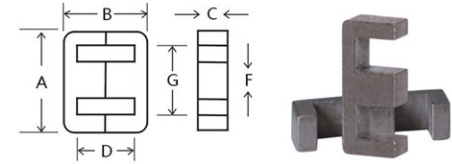
## 铁粉芯 Iron Powder Cores

## No.13/ E型磁芯 E Cores

TYPICAL PART NO. AE 19 - 26

AZE E Cores \_\_\_\_\_  
A Size \_\_\_\_\_  
Material Mix No. \_\_\_\_\_

$\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
Ae: 横截面积 (Cross Section Area)  
V: 磁芯体积 (Core Volume)  
W: 窗口面积 (Window Area)



AZE Part No.	Mirometals Part No.	$A_i$ , nH/N <sup>2</sup>	A mm	B mm	C mm	D mm	F mm	G mm	$\ell$ cm	$A_e$ cm <sup>2</sup>	V cm <sup>3</sup>	W cm <sup>2</sup>
AE35-40	E137-40	113.0										
AE35-52	E137-52	131.0	34.9	29.1	9.53	19.6	9.53	25.4	7.40	.907	6.72	1.55
AE37-18	E145-18	112.0										
AE37-26	E145-26	146.0	37.0	34.8	10.8	24.1	10.8	26.3	8.5	1.17	9.89	1.84
AE37-52	E145-52	146.0										
AE41-18	E162-18	149.0										
AE41-26	E162-26	210.0										
AE41-40	E162-40	175.0	41.3	34.1	12.7	21.4	12.7	28.6	8.41	1.61	13.6	1.70
AE41-52	E162-52	199.0										
AE43-18	E168-18	135.0										
AE43-26	E168-26	195.0										
AE43-40	E168-40	163.0	42.8	42.2	15.0	30.7	12.0	30.7	10.4	1.81	18.5	2.87
AE43-52	E168-52	179.0										
AE43-18A	E168-18A	170.0										
AE43-26A	E168-26A	232.0										
AE43-40A	E168-40A	196.0	42.8	42.2	20.0	30.7	12.0	30.7	10.4	2.41	24.6	2.87
AE43-52A	E168-52A	230.0										
AE47-18	E187-18	213.0										
AE47-26	E187-26	265.0										
AE47-40	E187-40	240.0	47.4	39.4	15.7	24.2	15.7	31.8	9.53	2.48	23.3	1.93
AE47-52	E187-52	265.0										
AE56-18	E220-48	196.0										
AE56-26	E220-26	275.0										
AE56-34	E220-34	136.0	56.1	55.4	20.8	38.3	17.3	38.6	13.2	3.60	47.7	4.09
AE56-40	E220-40	240.0										
AE56-52	E220-52	262.0										
AE57-18	E225-18	240.0										
AE57-26	E225-26	325.0	56.9	47.6	18.9	29.0	18.9	38.1	11.5	3.58	40.8	2.78

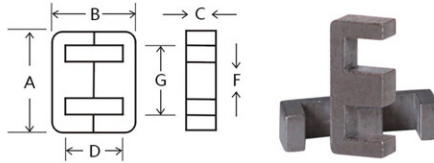
## 铁粉芯 Iron Powder Cores

## No.14/ E型磁芯 E Cores

### TYPICAL PART NO. AE 19 - 26

AZE E Cores \_\_\_\_\_  
A Size \_\_\_\_\_  
Material Mix No. \_\_\_\_\_

$\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
Ae: 横截面积 (Cross Section Area)  
V: 磁芯体积 (Core Volume)  
W: 窗口面积 (Window Area)



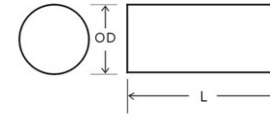
AZE Part No.	Mirometals Part No.	$A_e$ nH/N <sup>2</sup>	A mm	B mm	C mm	D mm	F mm	G mm	$\ell$ cm	$A_e$ cm <sup>2</sup>	V cm <sup>3</sup>	W cm <sup>2</sup>
AE57-40	E225-40	290.0	56.9	47.6	18.9	29.0	18.9	38.1	11.5	3.58	40.8	2.78
AE57-52	E225-52	325.0										
AE77-18	E305-18	222.0										
AE77-26	E305-26	287.0										
AE77-34	E305-34	150.0	77.5	77.5	23.7	53.8	23.7	53.8	18.5	5.62	104	8.10
AE77-40	E305-40	255.0										
AE77-52	E305-52	287.0										
AE77-18A	E305-18A	280.0										
AE77-26A	E305-26A	382.0	77.5	77.5	31.6	53.8	23.7	53.8	18.5	7.49	139	8.10
AE77-40A	E305-40A	339.0										
AE77-52A	E305-52A	382.0										
AE114-18	E450-18	400.0										
AE114-26	E450-26	540.0										
AE114-34	E450-34	300.0	114	92.4	34.9	57.2	34.9	79.3	22.9	12.2	280	12.7
AE114-40	E450-40	480.0										
AE114-52	E450-52	500.0										
AE114-18H	E450-18H	200.0	114	92.4	17.5	57.2	34.9	79.3	22.9	6.1	140	12.7
AE114-52H	E450-52H	270.0										

## 铁粉芯 Iron Powder Cores

## No.15/ 管状磁芯 Plain Cores

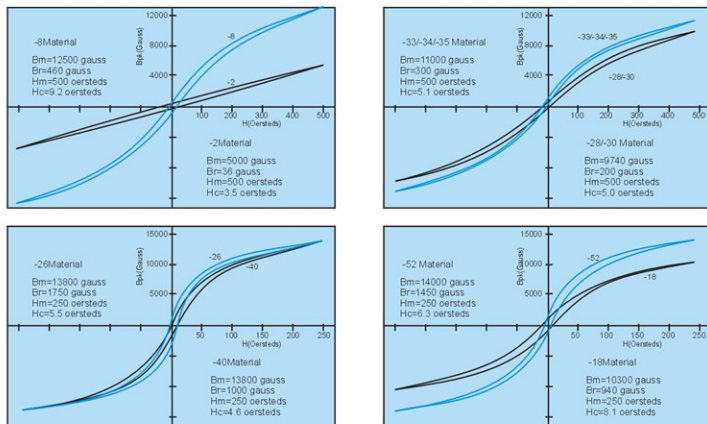
### TYPICAL PART NO. AP 6.35×19.1

AZE Plain Cores \_\_\_\_\_  
OD (mm) \_\_\_\_\_  
L (mm) \_\_\_\_\_

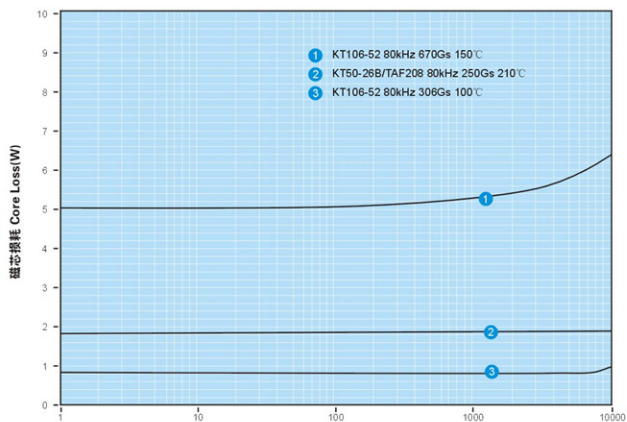


AZE Part No.	$A_e$ nH/N <sup>2</sup>	OD mm	L mm
AP3.45×19.7	7.6	3.45	19.7
AP4.83×19.1	12.5	4.83	19.1
AP6.35×19.1	16.0	6.35	19.1
AP6.35×25.4	16.0	6.35	25.4
AP6.48×31.8	15.0	6.48	31.8
AP6.48×38.1	14.5	6.48	38.1
AP7.95×25.4	20.0	7.95	25.4
AP7.95×31.8	20.0	7.95	31.8
AP7.95×47.6	18.0	7.95	47.6
AP9.53×25.4	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

B-H曲线图 / B-H Curves

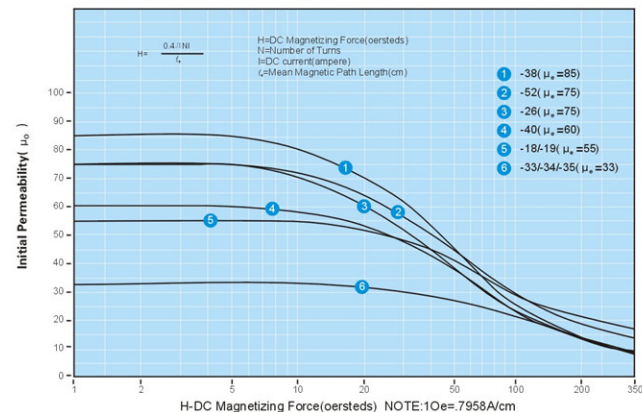


磁芯损耗与时间关系曲线 / Core Loss vs Time



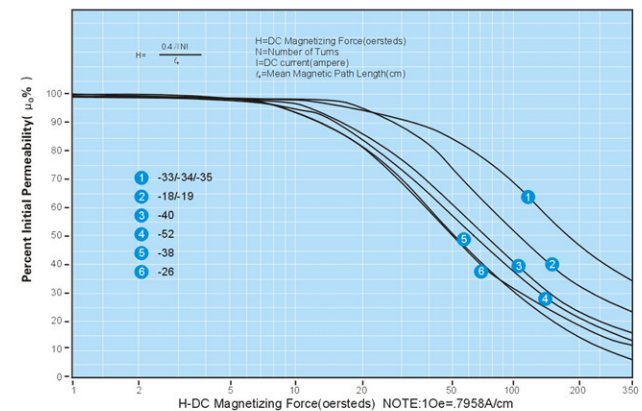
磁导率初值与DC磁化力关系曲线

/ Initial Permeability ( $\mu_0$ ) vs DC Magnetizing Force



磁导率初值百分率与DC磁化力关系曲线

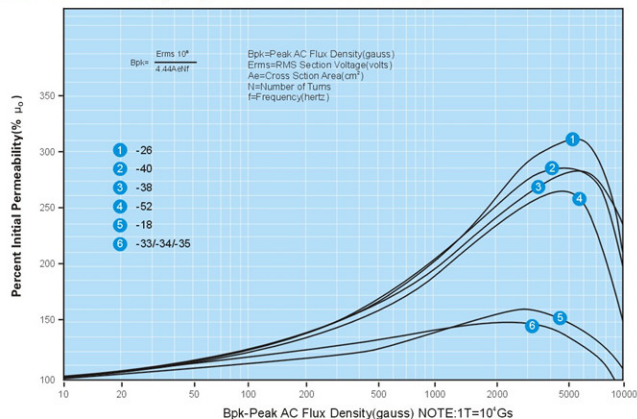
/ Percent Initial Permeability ( $\mu_0\%$ ) vs DC Magnetizing Force



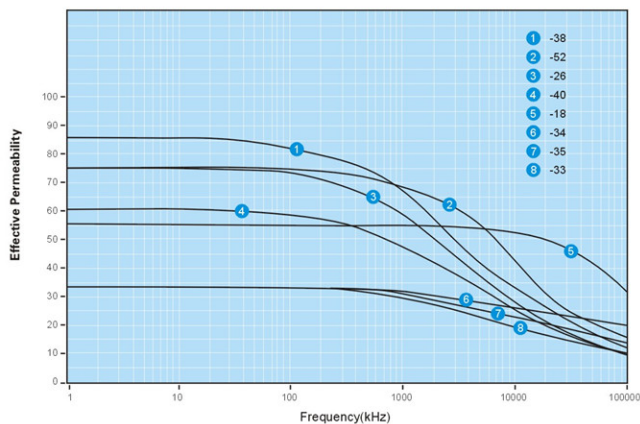
## 铁粉芯 Iron Powder Cores

## No.18 / 磁力特性 Magnetic Characteristics

磁导率初值百分率与AC通量密度峰值关系曲线  
/ Percent Initial Permeability(%  $\mu_0$ ) vs Peak AC Flux Density



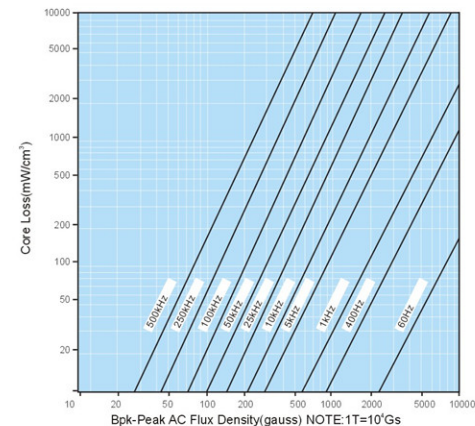
有效磁导率与频率关系曲线  
/ Effective Permeability vs Frequency



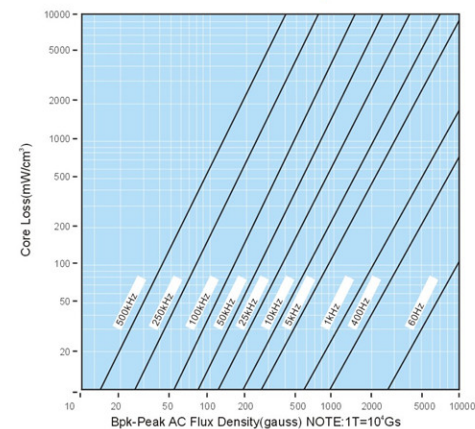
## 铁粉芯 Iron Powder Cores

## No.19 / 磁力特性 Magnetic Characteristics

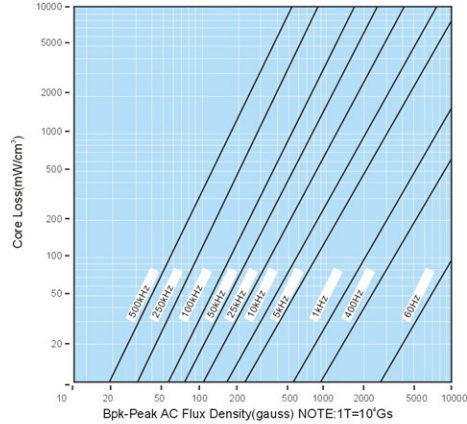
-18材磁芯损耗与AC峰值磁通密度关系曲线  
/ -18Material  $\mu_e = 55$ Core LOSS vs Peak AC Flux Density



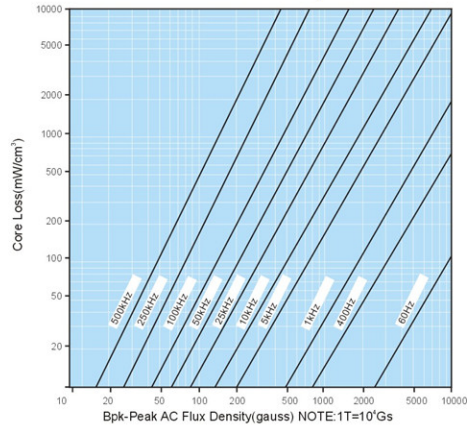
-26材磁芯损耗与AC峰值磁通密度关系曲线  
/ -26Material  $\mu_e = 75$ Core LOSS vs Peak AC Flux Density



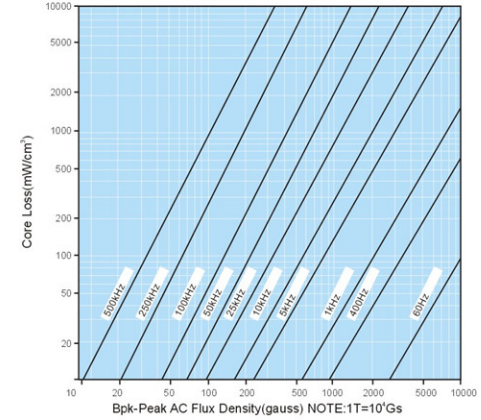
-34材磁芯损耗与AC峰值磁通密度关系曲线  
/ -34Material  $\mu_s = 33$  Core LOSS vs Peak AC Flux Density



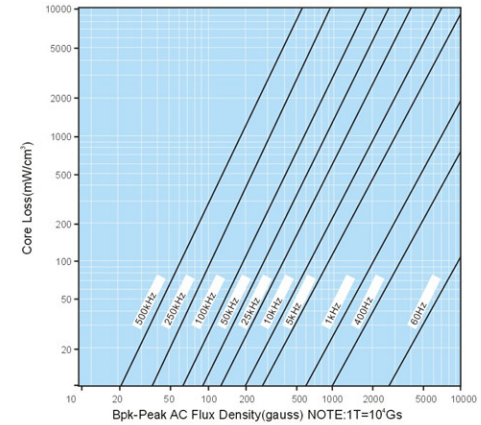
-35材磁芯损耗与AC峰值磁通密度关系曲线  
/ -35Material  $\mu_s = 33$  Core LOSS vs Peak AC Flux Density



-40材磁芯损耗与AC峰值磁通密度关系曲线  
/ -40Material  $\mu_s = 60$  Core LOSS vs Peak AC Flux Density



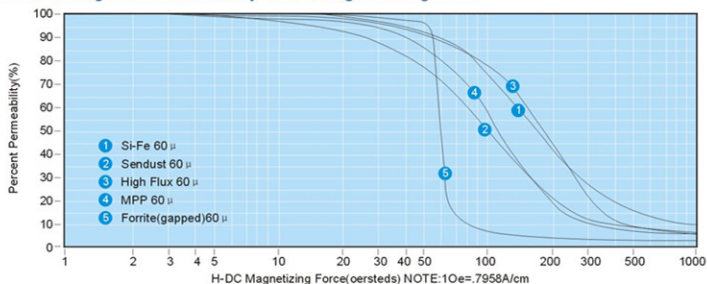
-52材磁芯损耗与AC峰值磁通密度关系曲线  
/ -52Material  $\mu_s = 75$  Core LOSS vs Peak AC Flux Density



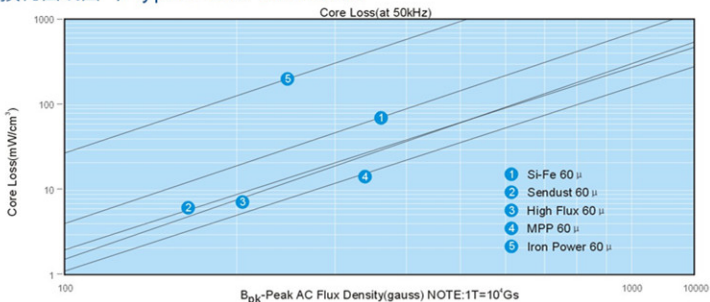
## 一般性能对照表 / Basic Characteristics Reference Table

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
Mpp	Lowest	Better	Highest	1MHz	400°C	7,500G	Best
Ferrite ( gapped )	Lowest	Poor	Low	1MHz	200°C	4,500G	Poor

## 磁导率百分率与DC磁化力关系曲线 / Percent Change of Permeability vs.DC magnetizing Force



## 典型损耗曲线图 / Typical Core Loss Curve



合金磁粉芯的标示方法 / Notation Method of Alloy Magnetic Powder Cores



磁性宽限度 / Magnetic Tolerance

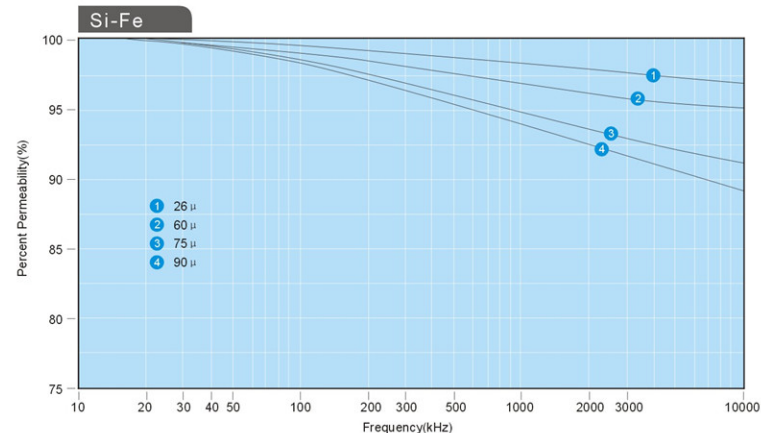
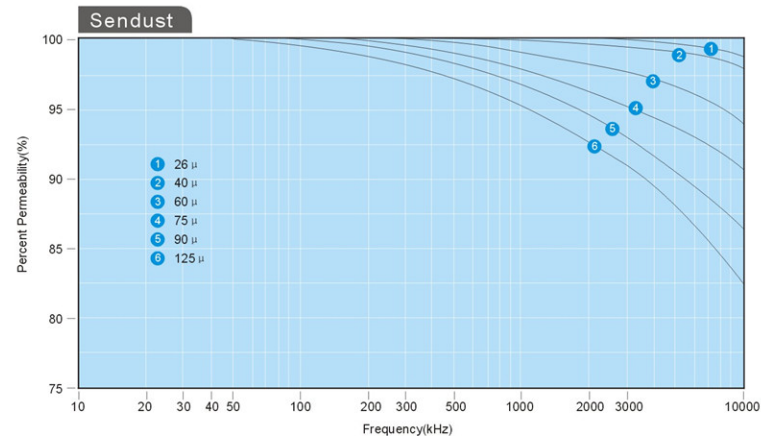
典型的电感系数是在1000圈下测得的值，我们电感系数偏差范围是 $\pm 8\%$ 。磁力特性曲线，均有 $\pm 10\%$ 的典型宽限度，而磁芯损耗曲线就有 $\pm 15\%$ 的典型宽限度。

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  $\pm 15\%$ .

电感系数与圈数的关系 / Inductance Versus Turns

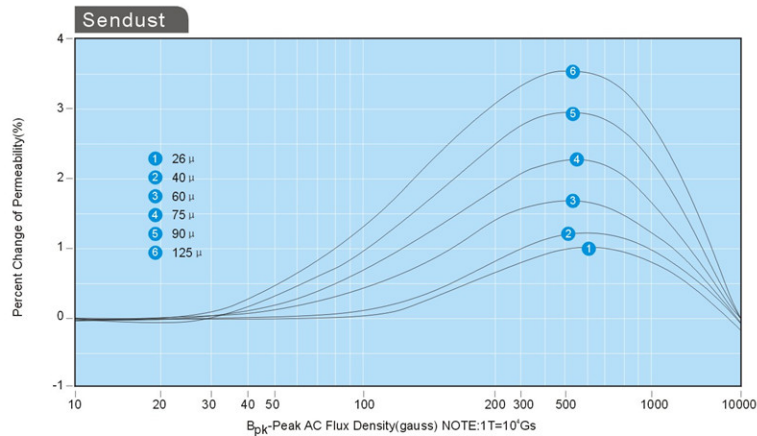
Turns 圈数	Actual Inductance	电感系数
1000	+0.0%	
500	+0.5%	
300	+1.0%	
100	+3.0%	
50	+5.0%	
25	+8.5%	

磁导率与频率关系曲线 / Permeability vs .Frequency

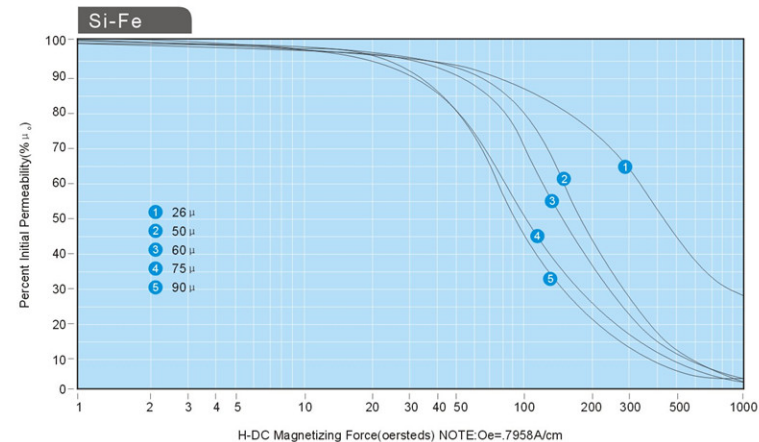
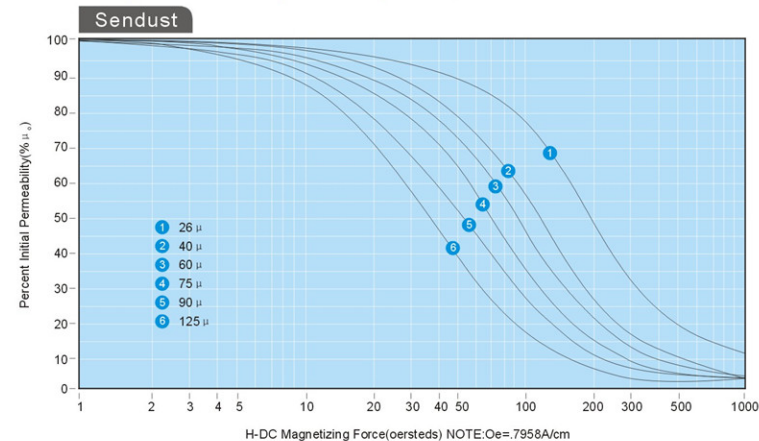




磁导率百分率与AC磁通密度关系曲线  
/ Percent Change of Permeability vs.AC Flux Density

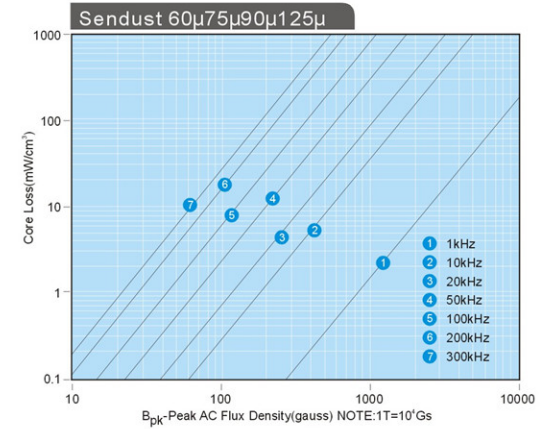
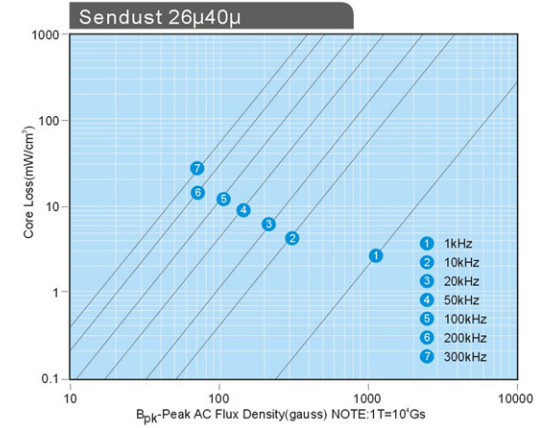
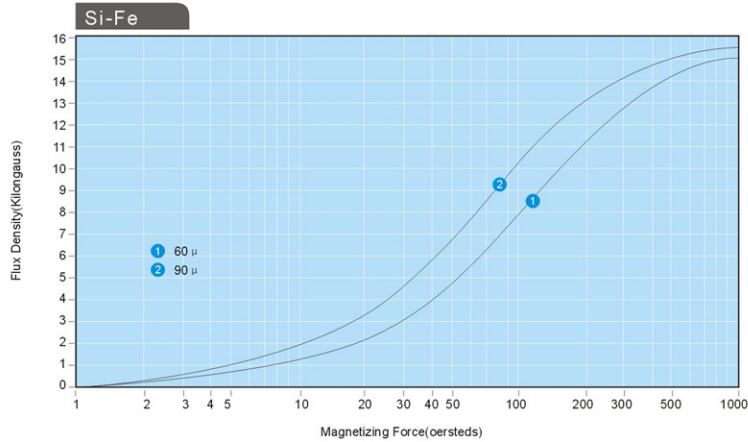
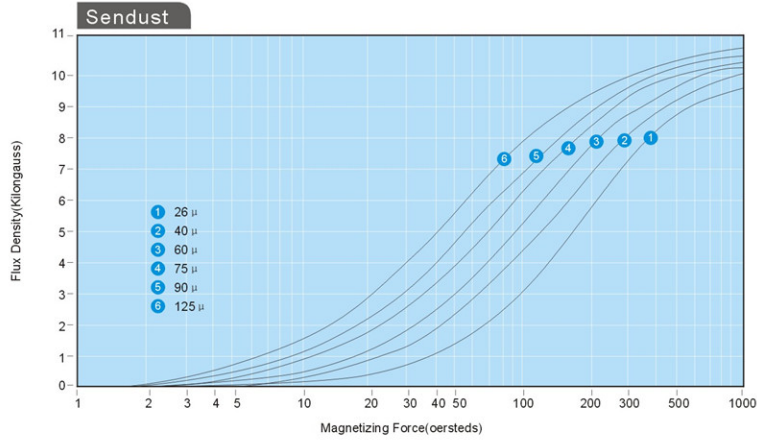


磁导率百分率与DC磁化力关系曲线  
/ Percent Change of Permeability vs.DCmagnetizing Force

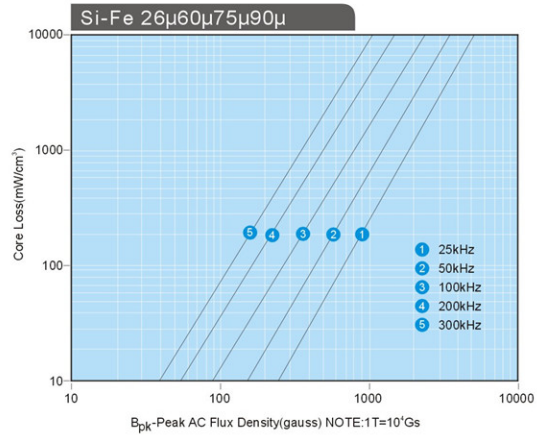
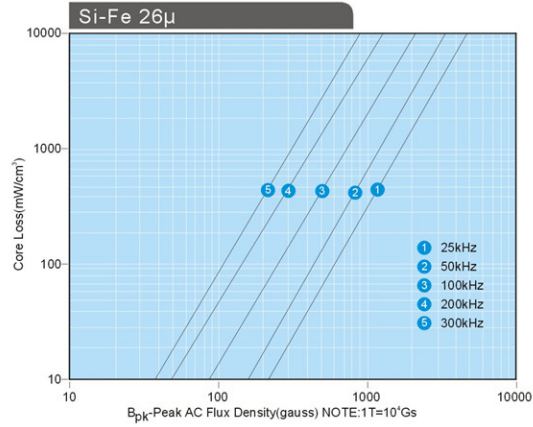


标准磁化曲线 / Normal Magnetization Curves

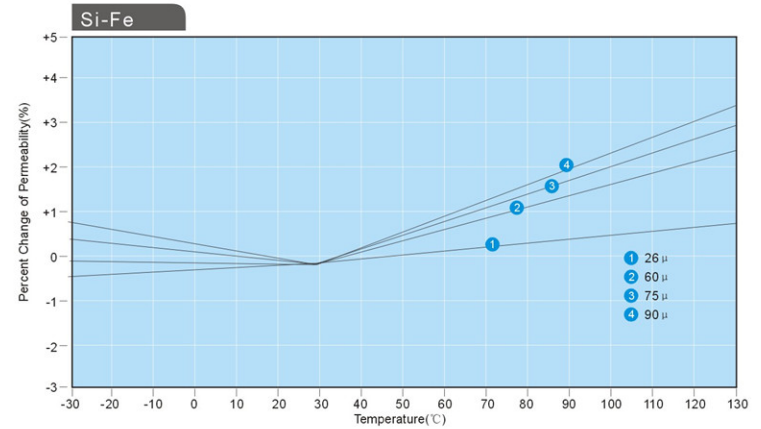
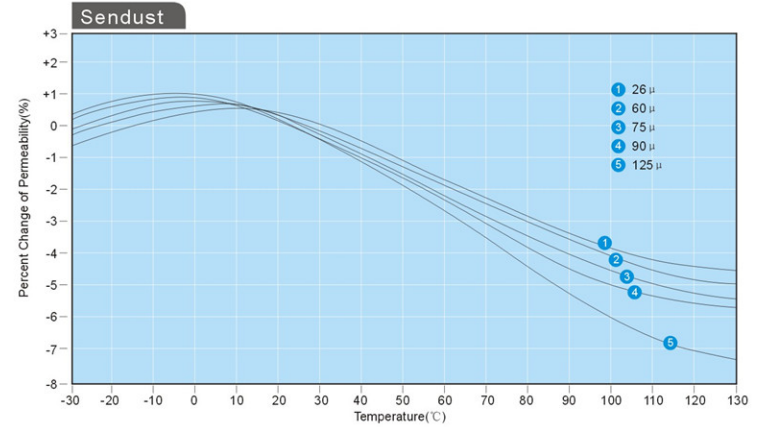
典型磁粉芯损耗值曲线 / Typical Core Loss Curves



典型磁粉芯损耗值曲线 / Typical Core Loss Curves



磁导率百分率与温度关系曲线 / Temperature Stability



## 合金磁粉芯

Alloy Magnetic Powdr Cores

# No.1 / OD6.35×ID2.79×HT2.79

**TYPICAL PART NO .AS 025-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 V: 磁芯体积 (Core Volume)   
 W: 窗口面积 (Window Area)

## 合金磁粉芯

Alloy Magnetic Powdr Cores

# No.2 / OD6.60×ID2.67×HT4.78

**TYPICAL PART NO .AS 026-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 V: 磁芯体积 (Core Volume)   
 W: 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	V cm <sup>3</sup>	W cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
6.35	2.79	2.79	6.99	2.29	3.43	1.361	0.047	0.064	0.041

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	V cm <sup>3</sup>	W cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
6.60	2.67	4.78	7.24	2.16	5.54	1.363	0.092	0.125	0.038

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS025-026A	26	10	MS-025026-8	-	S025-010A	-
	AS025-060A	60	24	MS-025060-8	77021-A7	S025-024A	CS063060
	AS025-075A	75	30	MS-025075-8	77825-A7	S025-030A	CS063075
	AS025-090A	90	36	MS-025090-8	77824-A7	S025-036A	CS063090
	AS025-125A	125	50	MS-025125-8	77020-A7	S025-050A	Cs063125
Si-Fe	ASF025-026A	26	10	FS-025026-8	-	-	-
	ASF025-060A	60	24	FS-025060-8	-	W025-024A	Ck063060
	ASF025-075A	75	30	FS-025075-8	-	-	Ck063075
	ASF025-090A	90	36	FS-025090-8	-	W025-036A	Ck063090

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS026-026A	26	21	MS-026026-8	-	S026-021A	-
	AS026-060A	60	50	MS-026060-8	77271-A7	S026-050A	CS067060
	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
Si-Fe	ASF026-026A	26	21	FS-026026-8	-	-	-
	ASF026-060A	60	50	FS-026060-8	-	W026-050A	CK067060
	ASF026-075A	75	62	FS-026075-8	-	-	CK067075
	ASF026-090A	90	74	FS-026090-8	-	W026-074A	Ck067090

## 合金磁粉芯

Alloy Magnetic Powdr Cores

# No.3 / OD6.60×ID2.67×HT2.54

**TYPICAL PART NO .AS 027-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 $V$ : 磁芯体积 (Core Volume)   
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
6.60	2.67	2.54	7.24	2.16	3.18	1.363	0.047	0.064	0.041

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_L$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS027-026A	26	11	MS-027026-8	-	S026-011A	-
	AS027-060A	60	26	MS-027060-8	77241-A7	S026-026A	CS066060
	AS027-075A	75	32	MS-027075-8	77245-A7	S026-032A	CS066075
	AS027-090A	90	39	MS-027090-8	77244-A7	S026-039A	CS066090
	AS027-125A	125	54	MS-027125-8	77240-A7	S026-054A	CS066125
Si-Fe	ASF027-026A	26	11	FS-027026-8	-	-	-
	ASF027-060A	60	26	FS-027060-8	-	W026-026A	CK066060
	ASF027-075A	75	32	FS-027075-8	-	-	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**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 $V$ : 磁芯体积 (Core Volume)   
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
7.78	3.96	3.18	8.51	3.43	3.81	1.787	0.061	0.109	0.092

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_L$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS031-026A	26	11	MS-031026-8	-	S031-011A	-
	AS031-060A	60	25	MS-031060-8	77031-A7	S031-025A	CS078060
	AS031-075A	75	31	MS-031075-8	77835-A7	S031-031A	CS078075
	AS031-090A	90	37	MS-031090-8	77834-A7	S031-037A	CS078090
	AS031-125A	125	52	MS-031125-8	77030-A7	S031-052A	CS078125
Si-Fe	ASF031-026A	26	11	FS-031026-8	-	-	-
	ASF031-060A	60	25	FS-031060-8	-	W031-025A	CK078060
	ASF031-075A	75	31	FS-031075-8	-	-	CK078075
	ASF031-090A	90	37	FS-031090-8	-	W031-037A	CK078090

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.5 / OD9.65×ID4.78×HT3.96

**TYPICAL PART NO .AS 038-125 A**

AZE. Material Mix No. \_\_\_\_\_

Size: OD in 100th inches \_\_\_\_\_

Permeability ( $\mu_r$ ) \_\_\_\_\_

Core Grading \_\_\_\_\_



AZE Material Mix No.  
AS: Sendust Cores (Black)  
ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$ : 横截面积 (Cross Section Area)  
 $V$ : 磁芯体积 (Core Volume)  
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
9.65	4.78	3.96	10.29	4.27	4.60	2.180	0.094	0.206	0.142

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS038-026A	26	14	MS-038026-8	-	S038-014A	-
	As038-060A	60	32	MS-038060-8	77291-A7	S038-032A	CS097060
	As038-075A	75	40	MS-038075-8	77295-A7	S038-040A	CS097075
	As038-090A	90	48	MS-038090-8	77294-A7	S038-048A	CS097090
	As038-125A	125	66	MS-038125-8	77290-A7	S038-066A	CS097125
Si-Fe	ASF038-026A	26	14	FS-038026-8	-	-	-
	ASF038-060A	60	32	FS-038060-8	-	W038-032A	CK097060
	ASF038-075A	75	40	FS-038075-8	-	-	CK097075
	ASF038-090A	90	48	FS-038090-8	-	W038-048A	Ck097090

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.6 / OD9.65×ID4.78×HT3.18

**TYPICAL PART NO .AS 039-125 A**

AZE. Material Mix No. \_\_\_\_\_

Size: OD in 100th inches \_\_\_\_\_

Permeability ( $\mu_r$ ) \_\_\_\_\_

Core Grading \_\_\_\_\_



AZE Material Mix No.  
AS: Sendust Cores (Black)  
ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$ : 横截面积 (Cross Section Area)  
 $V$ : 磁芯体积 (Core Volume)  
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
9.65	4.78	3.18	10.29	4.27	3.81	2.180	0.075	0.163	0.1422

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS039-026A	26	11	MS-039026-8	-	S038-011A	-
	AS039-060A	60	25	MS-039060-8	77281-A7	S038-025A	CS096060
	AS039-075A	75	32	MS-039075-8	77885-A7	S038-032A	CS096075
	AS039-090A	90	38	MS-039090-8	77884-A7	S038-038A	CS096090
	AS039-125A	125	53	MS-039125-8	77280-A7	S038-053A	CS096125
Si-Fe	ASF039-026A	26	11	FS-039026-8	-	-	-
	ASF039-060A	60	25	FS-039060-8	-	W038-025A	CK096060
	ASF039-075A	75	32	FS-039075-8	-	-	CK096075
	ASF039-090A	90	38	FS-039090-8	-	W038-038A	Ck096090

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.7 / OD10.20×ID5.08×HT3.96

**TYPICAL PART NO .AS 040-125 A**  
 AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.  
 AS: Sendust Cores (Black)  
 ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$ : 横截面积 (Cross Section Area)  
 $V$ : 磁芯体积 (Core Volume)  
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
10.20	5.08	3.96	10.80	4.57	4.60	2.380	0.100	0.238	0.164

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS040-026A	26	14	MS-040026-2	-	S040-014A	-
	AS040-060A	60	32	MS-040060-2	77041-A7	S040-032A	CS102060
	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
Si-Fe	ASF040-026A	26	14	FS-040026-2	-	-	-
	ASF040-060A	60	32	FS-040060-2	-	W040-032A	CK102060
	ASF040-075A	75	40	FS-040075-2	-	-	CK102075
	ASF040-090A	90	48	FS-040090-2	-	W040-048A	Ck102090

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.8 / OD11.20×ID6.35×HT3.96

**TYPICAL PART NO .AS 044-125 A**  
 AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.  
 AS: Sendust Cores (Black)  
 ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$ : 横截面积 (Cross Section Area)  
 $V$ : 磁芯体积 (Core Volume)  
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
11.20	6.35	3.96	11.89	5.89	4.72	2.690	0.090	0.243	0.273

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS044-026A	26	11	MS-044026-2	-	S044-011A	CS112026
	AS044-060A	60	26	MS-044060-2	77131-A7	S044-026A	CS112060
	AS044-075A	75	32	MS-044075-2	77335-A7	S044-032A	CS112075
	AS044-090A	90	38	MS-044090-2	77334-A7	S044-038A	CS112090
	AS044-125A	125	53	MS-044125-2	77130-A7	S044-053A	CS112125
Si-Fe	ASF044-026A	26	11	FS-044026-2	-	-	-
	ASF044-060A	60	26	FS-044060-2	-	W044-026A	CK112060
	ASF044-075A	75	32	FS-044075-2	-	-	CK112075
	ASF044-090A	90	38	FS-044090-2	-	W044-038A	Ck112090

## 合金磁粉芯

Alloy Magnetic Powdr Cores

# No.9 / OD12.70×ID7.26×HT4.75

**TYPICAL PART NO.** .AS 050-125 A  
 AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.  
 AS: Sendust Cores (Black)  
 ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$ : 横截面积 (Cross Section Area)  
 $V$ : 磁芯体积 (Core Volume)  
 $W$ : 窗口面积 (Window Area)

## 合金磁粉芯

Alloy Magnetic Powdr Cores

# No.10 / OD16.50×ID10.20×HT6.35

**TYPICAL PART NO.** .AS 065-125 A  
 AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.  
 AS: Sendust Cores (Black)  
 ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$ : 横截面积 (Cross Section Area)  
 $V$ : 磁芯体积 (Core Volume)  
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
12.70	7.62	4.75	13.46	6.99	5.51	3.120	0.114	0.356	0.383

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
16.50	10.20	6.35	17.40	9.53	7.11	4.110	0.192	0.789	0.713

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS050-026A	26	12	MS-050026-2	-	S050-012A	CS127026
	AS050-060A	60	27	MS-050060-2	77051-A7	S050-027A	CS127060
	AS050-075A	75	34	MS-050075-2	77055-A7	S050-034A	CS127075
	AS050-090A	90	40	MS-050090-2	77054-A7	S050-040A	CS127090
	AS050-125A	125	56	MS-050125-2	77050-A7	S050-056A	CS127125
Si-Fe	ASF050-026A	26	12	FS-050026-2	-	-	-
	ASF050-060A	60	27	FS-050060-2	78051-A7	W050-027A	CK127060
	ASF050-075A	75	34	FS-050075-2	-	-	CK127075
	ASF050-090A	90	40	FS-050090-2	-	W050-040A	Ck127090

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS065-026A	26	15	MS-065026-2	-	S065-015A	CS166026
	AS065-060A	60	35	MS-065060-2	77121-A7	S065-035A	CS166060
	AS065-075A	75	43	MS-065075-2	77225-A7	S065-043A	CS166075
	AS065-090A	90	52	MS-065090-2	77224-A7	S065-052A	CS166090
	AS065-125A	125	72	MS-065125-2	77120-A7	S065-072A	CS166125
Si-Fe	ASF065-026A	26	15	FS-065026-2	-	-	-
	ASF065-060A	60	35	FS-065060-2	78121-A7	W065-035A	CK166060
	ASF065-075A	75	43	FS-065075-2	-	-	CK166075
	ASF065-090A	90	52	FS-065090-2	-	W065-052A	Ck166090



## 合金磁粉芯

Alloy Magnetic Powdr Cores

# No.11/OD17.30×ID9.65×HT6.35

**TYPICAL PART NO .AS 068-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 $V$ : 磁芯体积 (Core Volume)   
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
17.30	9.65	6.35	18.03	9.02	7.11	4.140	0.232	0.960	0.638

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS068-026A	26	19	MS-068026-2	-	S068-019A	CS172026
	AS068-060A	60	43	MS-068060-2	77381-A7	S068-043A	CS172060
	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
Si-Fe	ASF068-026A	26	19	FS-068026-2	-	-	-
	ASF068-060A	60	43	FS-068060-2	78381-A7	W068-043A	CK172060
	ASF068-075A	75	53	FS-068075-2	-	-	CK172075
	ASF068-090A	90	64	FS-068090-2	-	W068-064A	Ck172090

## 合金磁粉芯

Alloy Magnetic Powdr Cores

# No.12/OD20.30×ID12.70×HT6.35

**TYPICAL PART NO .AS 080-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 $V$ : 磁芯体积 (Core Volume)   
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
20.30	12.70	6.35	21.10	12.07	7.11	5.090	0.226	1.150	1.140

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS080-026A	26	14	MS-080026-2	-	S080-014A	CS203026
	AS080-040A	40	21	-	77847-A7	-	-
	AS080-060A	60	32	MS-080060-2	77848-A7	S080-032A	CS203060
	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
Si-Fe	ASF080-026A	26	14	FS-080026-2	-	-	CK203026
	ASF080-060A	60	32	FS-080060-2	78848-A7	W080-032A	CK203060
	ASF080-075A	75	41	FS-080075-2	-	-	CK203075
	ASF080-090A	90	49	FS-080090-2	-	W080-049A	Ck203090

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.13/ OD22.90×ID14.00×HT7.62

**TYPICAL PART NO .AS 090-125 A**  
 AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.  
 AS: Sendust Cores (Black)  
 ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$ : 横截面积 (Cross Section Area)  
 $V$ : 磁芯体积 (Core Volume)  
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
22.9	14.00	7.62	23.62	13.39	8.38	5.670	0.331	1.880	1.410

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_L$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS090-026A	26	19	MS-090026-2	77312-A7	S090-019A	CS229026
	AS090-040A	40	29	-	77316-A7	-	-
	AS090-060A	60	43	MS-090060-2	77059-A7	S090-043A	CS229060
	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
Si-Fe	ASF090-026A	26	19	FS-090026-2	-	-	CK229026
	ASF090-060A	60	43	FS-090060-2	78059-A7	W090-043A	CK229060
	ASF090-075A	75	54	FS-090075-2	-	-	CK229075
	ASF090-090A	90	65	FS-090090-2	-	W090-065A	CK229090

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.14/ OD23.60×ID14.40×HT8.89

**TYPICAL PART NO .AS 092-125 A**  
 AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.  
 AS: Sendust Cores (Black)  
 ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$ : 横截面积 (Cross Section Area)  
 $V$ : 磁芯体积 (Core Volume)  
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
23.60	14.40	8.89	24.30	13.77	9.70	5.880	0.388	2.280	1.490

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_L$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS092-026A	26	22	MS-092026-2	77352-A7	S092-022A	Cs234026
	AS092-040A	40	34	-	77356-A7	-	-
	AS092-060A	60	51	MS-092060-2	77351-A7	S092-051A	CS234060
	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
Si-Fe	ASF092-026A	26	22	FS-092026-2	-	-	CK234026
	ASF092-060A	60	51	FS-092060-2	78351-A7	W092-051A	CK234060
	ASF092-075A	75	63	FS-092075-2	-	-	CK234075
	ASF092-090A	90	76	FS-092090-2	-	W092-076A	CK234090

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.15 / OD26.90×ID14.70×HT11.20

**TYPICAL PART NO .AS 106-125 A**  
 AZE. Material Mix No. \_\_\_\_\_  
 Size: OD in 100th inches \_\_\_\_\_  
 Permeability ( $\mu_r$ ) \_\_\_\_\_  
 Core Grading \_\_\_\_\_



AZE Material Mix No.  
 AS: Sendust Cores (Black)  
 ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$ : 横截面积 (Cross Section Area)  
 $V$ : 磁芯体积 (Core Volume)  
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
26.90	14.70	11.20	27.70	14.10	11.99	6.350	0.654	4.150	1.560

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS106-026A	26	32	MS-106026-2	77932-A7	S106-032A	Cs270026
	AS106-040A	40	50	-	77936-A7	-	-
	AS106-060A	60	75	MS-106060-2	77894-A7	S106-075A	CS270060
	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
Si-Fe	ASF106-026A	26	32	FS-106026-2	-	-	CK270026
	ASF106-060A	60	75	FS-106060-2	78894-A7	W106-075A	CK270060
	ASF106-075A	75	94	FS-106075-2	-	-	CK270075
	ASF106-090A	90	113	FS-106090-2	-	W106-113A	CK270090

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.16 / OD26.90×ID14.70×HT8.46

**TYPICAL PART NO .AS 107-125 A**  
 AZE. Material Mix No. \_\_\_\_\_  
 Size: OD in 100th inches \_\_\_\_\_  
 Permeability ( $\mu_r$ ) \_\_\_\_\_  
 Core Grading \_\_\_\_\_



AZE Material Mix No.  
 AS: Sendust Cores (Black)  
 ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$ : 横截面积 (Cross Section Area)  
 $V$ : 磁芯体积 (Core Volume)  
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
26.90	14.70	8.64	27.70	14.10	9.45	6.352	0.497	3.1551	1.5608

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS107-026A	26	26	MS-107026-2			
	AS107-060A	60	59	MS-107060-2			
	AS107-075A	75	74	MS-107075-2			
	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			
	ASF107-075A	75	74	FS-107075-2			
	ASF107-090A	90	89	FS-107090-2			

## 合金磁粉芯

Alloy Magnetic Powdr Cores

# No.17/ OD33.00×ID19.90×HT10.70

**TYPICAL PART NO .AS 130-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 V: 磁芯体积 (Core Volume)   
 W: 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	V cm <sup>3</sup>	W cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
33.00	19.90	10.70	33.83	19.30	11.61	8.150	0.672	5.480	2.930

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS130-026A	26	28	MS-130026-2	77550-A7	S130-028A	Cs330026
	AS130-040A	40	41	-	77555-A7	-	-
	AS130-060A	60	61	MS-130060-2	77071-A7	S130-061A	CS330060
	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
Si-Fe	ASF130-026A	26	28	FS-130026-2	-	-	CK330026
	ASF130-060A	60	61	FS-130060-2	78071-A7	W130-061A	CK330060
	ASF130-075A	75	76	FS-130075-2	-	-	CK330075
	ASF130-090A	90	91	FS-130090-2	-	W130-091A	Ck330090

## 合金磁粉芯

Alloy Magnetic Powdr Cores

# No.18/ OD33.00×ID19.90×HT8.76

**TYPICAL PART NO .AS 131-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 V: 磁芯体积 (Core Volume)   
 W: 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	V cm <sup>3</sup>	W cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
33.00	19.90	8.76	33.83	19.30	9.70	8.147	0.55116	4.4902	2.9267

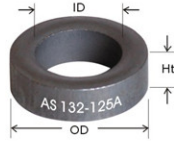
### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS131-026A	26	22	MS-131026-2			
	AS131-060A	60	51	MS-131060-2			
	AS131-075A	75	64	MS-131075-2			
	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			
	ASF131-075A	75	64	FS-131075-2			
	ASF131-090A	90	76.5	FS-131090-2			

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.19/ OD33.00×ID19.99×HT11.8

**TYPICAL PART NO .AS 132-125 A**  
 AZE. Material Mix No. \_\_\_\_\_  
 Size: OD in 100th inches \_\_\_\_\_  
 Permeability ( $\mu_r$ ) \_\_\_\_\_  
 Core Grading \_\_\_\_\_



AZE Material Mix No.  
 AS: Sendust Cores (Black)  
 ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$ : 横截面积 (Cross Section Area)  
 $V$ : 磁芯体积 (Core Volume)  
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
33.00	19.90	11.18	33.83	19.30	11.99	8.147	0.6981	5.6870	2.9267

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS132-026A	26	28	MS-132026-2			
	AS132-060A	60	65	MS-132060-2			
	AS132-075A	75	81	MS-132075-2			
	AS132-090A	90	97	MS-132090-2			
	AS132-125A	125	135	MS-132125-2			
Si-Fe	ASF132-026A	26	28	FS-132026-2			
	ASF132-060A	60	65	FS-132060-2			
	ASF132-075A	75	81	FS-132075-2			
	ASF132-090A	90	97	FS-132090-2			

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.20/ OD34.30×ID23.40×HT8.89

**TYPICAL PART NO .AS 135-125 A**  
 AZE. Material Mix No. \_\_\_\_\_  
 Size: OD in 100th inches \_\_\_\_\_  
 Permeability ( $\mu_r$ ) \_\_\_\_\_  
 Core Grading \_\_\_\_\_



AZE Material Mix No.  
 AS: Sendust Cores (Black)  
 ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)  
 $A_c$ : 横截面积 (Cross Section Area)  
 $V$ : 磁芯体积 (Core Volume)  
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
34.30	23.40	8.89	35.10	22.56	9.83	8.950	0.454	4.060	4.010

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS135-026A	26	16	MS-135026-2	77587-A7	S135-016A	CS343026
	AS135-040A	40	25	-	77591-A7	-	-
	AS135-060A	60	38	MS-135060-2	77586-A7	S135-038A	CS343060
	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
Si-Fe	ASF135-026A	26	16	FS-135026-2	-	-	CK343326
	ASF135-060A	60	38	FS-135060-2	78586-A7	W135-038A	CK343060
	ASF135-075A	75	47	FS-135075-2	-	-	CK343075
	ASF135-090A	90	57	FS-135090-2	-	W135-057A	CK343090

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.21/ OD35.80×ID22.40×HT10.50

**TYPICAL PART NO .AS 141-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 ( Mean Magnetic Path Length)   
 $A_c$ : 横截面积 ( Cross Section Area)   
 $V$ : 磁芯体积 ( Core Volume)   
 $W$ : 窗口面积 ( Window Area)

#### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD ( Max ) mm	ID ( Min ) mm	Ht ( Max ) mm	OD ( Max ) mm	ID ( Min ) mm	Ht ( Max ) mm				
35.80	22.40	10.50	36.63	21.54	11.28	8.980	0.678	6.088	3.640

#### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No .	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
Sendust	AS141-026A	26	24	MS-141026-2	77326-A7	S141-024A	CS358026
	AS141-040A	40	37	-	77330-A7	-	-
	AS141-060A	60	56	MS-141060-2	77076-A7	S141-056A	CS358060
	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
Si-Fe	ASF141-026A	26	24	FS-141026-2	-	-	Ck358026
	ASF141-060A	60	56	FS-141060-2	78076-A7	W141-056A	CK358060
	ASF141-075A	75	70	FS-141075-2	-	-	CK358075
	ASF141-090A	90	84	FS-141090-2	-	W141-084A	Ck358090

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.22/ OD39.90×ID24.10×HT14.50

**TYPICAL PART NO .AS 157-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 ( Mean Magnetic Path Length)   
 $A_c$ : 横截面积 ( Cross Section Area)   
 $V$ : 磁芯体积 ( Core Volume)   
 $W$ : 窗口面积 ( Window Area)

#### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD ( Max ) mm	ID ( Min ) mm	Ht ( Max ) mm	OD ( Max ) mm	ID ( Min ) mm	Ht ( Max ) mm				
39.90	24.10	14.50	40.72	23.30	15.37	9.840	1.072	10.500	4.270

#### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No .	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
Sendust	AS157-026A	26	35	MS-157026-2	77256-A7	S157-035A	CS400026
	AS157-040A	40	54	-	77260-A7	-	-
	AS157-060A	60	81	MS-157060-2	77083-A7	S157-081A	CS400060
	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
Si-Fe	ASF157-026A	26	35	FS-157026-2	-	-	Ck400026
	ASF157-060A	60	81	FS-157060-2	78083-A7	W157-081A	CK400060
	ASF157-075A	75	101	FS-157075-2	-	-	CK400075
	ASF157-090A	90	121	FS-157090-2	-	W157-121A	Ck400090

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.23/ OD46.70×ID24.10×HT18.00

**TYPICAL PART NO .AS 184-125 A**  
 AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.  
 AS: Sendust Cores (Black)  
 ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 ( Mean Magnetic Path Length)  
 $A_c$ : 横截面积 ( Cross Section Area)  
 $V$ : 磁芯体积 ( Core Volume)  
 $W$ : 窗口面积 ( Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD ( Max ) mm	ID ( Min ) mm	Ht ( Max ) mm	OD ( Max ) mm	ID ( Min ) mm	Ht ( Max ) mm				
46.70	24.10	18.00	47.63	23.32	18.92	10.740	1.990	21.300	4.270

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No .	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
Sendust	AS184-026A	26	59	MS-184026-2	77440-A7	S184-059A	CS467026
	AS184-040A	40	90	-	77431-A7	-	-
	AS184-060A	60	135	MS-184060-2	77439-A7	S184-135A	CS467060
	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
Si-Fe	ASF184-026A	26	59	FS-184026-2	-	-	Ck467026
	ASF184-060A	60	135	FS-184060-2	77439-A7	W184-135A	CK467060
	ASF184-075A	75	169	FS-184075-2	-	-	CK467075
	ASF184-090A	90	202	FS-184090-2	-	W184-202A	Ck467090

### 合金磁粉芯 Alloy Magnetic Powdr Cores

## No.24/ OD46.70×ID28.70×HT15.20

**TYPICAL PART NO .AS 185-125 A**  
 AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.  
 AS: Sendust Cores (Black)  
 ASF: Si-Fe Cores (Blue)  
 $\ell$ : 平均磁路长度 ( Mean Magnetic Path Length)  
 $A_c$ : 横截面积 ( Cross Section Area)  
 $V$ : 磁芯体积 ( Core Volume)  
 $W$ : 窗口面积 ( Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD ( Max ) mm	ID ( Min ) mm	Ht ( Max ) mm	OD ( Max ) mm	ID ( Min ) mm	Ht ( Max ) mm				
46.70	28.70	15.20	47.63	27.89	16.13	11.630	1.340	15.580	6.110

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No .	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No .	Magnetics Part No .	Dongbu Part No .	CSC Part No .
Sendust	AS185-026A	26	37	MS-185026-2	77091-A7	S184-037A	CS468026
	AS185-040A	40	57	-	77095-A7	-	-
	AS185-060A	60	86	MS-185060-2	77090-A7	S184-086A	CS468060
	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
Si-Fe	ASF185-026A	26	37	FS-185026-2	-	-	Ck468026
	ASF185-060A	60	86	FS-185060-2	78090-A7	W184-086A	CK468060
	ASF185-075A	75	107	FS-185075-2	-	-	CK468075
	ASF185-090A	90	128	FS-185090-2	-	W184-128A	Ck468090

## 合金磁粉芯 Alloy Magnetic Powdr Cores

# No.25/ OD50.80×ID31.80×HT13.50

**TYPICAL PART NO .AS 200-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 $V$ : 磁芯体积 (Core Volume)   
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
50.80	31.80	13.50	51.69	30.94	14.35	12.730	1.251	15.930	7.500

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS200-026A	26	32	MS-200026-2	77717-A7	S200-032A	CS508026
	AS200-040A	40	49	-	77721-A7	-	-
	AS200-060A	60	73	MS-200060-2	77716-A7	S200-073A	CS508060
	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
Si-Fe	ASF200-026A	26	32	FS-200026-2	-	-	CK508326
	ASF200-060A	60	73	FS-200060-2	78716-A7	W200-073A	CK508060
	ASF200-075A	75	91	FS-200075-2	-	-	CK508075
	ASF200-090A	90	109	FS-200090-2	-	W200-109A	CK508090

## 合金磁粉芯 Alloy Magnetic Powdr Cores

# No.26/ OD57.20×ID35.60×HT14.00

**TYPICAL PART NO .AS 225-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 $V$ : 磁芯体积 (Core Volume)   
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
57.20	35.60	14.00	58.00	34.70	14.86	14.300	1.444	20.650	9.480

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS225-026A	26	33	MS-225026-2	77111-A7	S225-033A	CS572026
	AS225-040A	40	50	-	77212-A7	-	-
	AS225-060A	60	75	MS-225060-2	77110-A7	S225-075A	CS572060
	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
Si-Fe	ASF225-026A	26	33	FS-225026-2	-	-	CK572026
	ASF225-060A	60	75	FS-225060-2	78110-A7	W225-075A	CK572060
	ASF225-075A	75	94	FS-225075-2	-	-	CK572075
	ASF225-090A	90	112	FS-225090-2	-	W225-112A	CK572090



## 合金磁粉芯

Alloy Magnetic Powdr Cores

# No.27/ OD57.20×ID26.40×HT15.20

**TYPICAL PART NO .AS 226-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 $V$ : 磁芯体积 (Core Volume)   
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
57.20	26.40	15.20	58.00	25.60	16.10	12.500	2.290	28.60	5.140

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS226-026A	26	60	MS-226026-2	77191-A7	S225-060A	CS571026
	AS226-040A	40	92	-	77189-A7	-	-
	AS226-060A	60	138	MS-226060-2	77192-A7	S225-138A	CS571060
	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
Si-Fe	ASF226-026A	26	60	FS-226026-2	-	-	Ck571026
	ASF226-060A	60	138	FS-226060-2	78192-A7	W225-138A	CK571060
	ASF226-075A	75	172	FS-226075-2	-	-	CK571075
	ASF226-090A	90	207	FS-226090-2	-	W225-207A	Ck571090

## 合金磁粉芯

Alloy Magnetic Powdr Cores

# No.28/ OD62.0×ID32.6×HT25.0

**TYPICAL PART NO .AS 250-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 $V$ : 磁芯体积 (Core Volume)   
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
62.00	32.60	25.0	63.1	31.37	26.27	14.37	3.675	52.81	7.73

### 规格型号对照表 / Dimensions Table and Reference Table

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

## 合金磁粉芯

Alloy Magnetic Powdr Cores

# No.29/ OD77.80×ID49.20×HT12.70

**TYPICAL PART NO .AS 300-125 A**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 $V$ : 磁芯体积 (Core Volume)   
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
77.80	49.20	12.70	78.90	48.20	13.84	20.00	1.770	34.70	17.990

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS300-026A	26	30	MS-300026-2	77868-A7	S306-030A	CS777026
	AS300-040A	40	45	-	77872-A7	-	-
	AS300-060A	60	68	MS-300060-2	77867-A7	S306-068A	CS777060
	AS300-075A	75	85	MS-300075-2	-	S306-085A	CS777075
	AS300-090A	90	102	MS-300090-2	-	S306-102A	CS777090
	AS300-125A	125	142	MS-300125-2	-	S306-142A	CS777125
Si-Fe	ASF300-026A	26	30	FS-300026-2	-	-	Ck777026
	ASF300-060A	60	68	FS-300060-2	78867-A7	W306-068A	CK777060
	ASF300-075A	75	85	FS-300075-2	-	-	CK777075
	ASF300-090A	90	102	FS-300090-2	-	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**

AZE. Material Mix No.   
 Size: OD in 100th inches   
 Permeability ( $\mu_r$ )   
 Core Grading



AZE Material Mix No.   
 AS: Sendust Cores (Black)   
 ASF: Si-Fe Cores (Blue)   
 $\ell$ : 平均磁路长度 (Mean Magnetic Path Length)   
 $A_c$ : 横截面积 (Cross Section Area)   
 $V$ : 磁芯体积 (Core Volume)   
 $W$ : 窗口面积 (Window Area)

### 磁芯尺寸 / Magnetic Dimensions

涂层前 Before Coating			涂层后 After Coating			$\ell$ cm	$A_c$ cm <sup>2</sup>	$V$ cm <sup>3</sup>	$W$ cm <sup>2</sup>
OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm				
77.80	49.20	15.90	78.90	48.20	17.02	19.950	2.270	45.300	17.990

### 规格型号对照表 / Dimensions Table and Reference Table

	AZE Part No.	Perm. $\mu_r$	$A_c$ $\pm 12\%$	Arnold Part No.	Magnetics Part No.	Dongbu Part No.	CSC Part No.
Sendust	AS301-026A	26	37	MS-301026-2	77908-A7	S306-037A	CS778026
	AS301-040A	40	57	-	77912-A7	-	-
	AS301-060A	60	85	MS-301060-2	77907-A7	S306-085A	CS778060
	AS301-075A	75	107	MS-301075-2	-	S306-107A	CS778075
	AS301-090A	90	128	MS-301090-2	-	S306-128A	CS778090
	AS301-125A	125	178	MS-301125-2	-	S306-178A	CS778125
Si-Fe	ASF301-026A	26	37	FS-301026-2	-	-	Ck778026
	ASF301-060A	60	85	FS-301060-2	78907-A7	W306-085A	CK778060
	ASF301-075A	75	107	FS-301075-2	-	-	CK778075
	ASF301-090A	90	128	FS-301090-2	-	W306-128A	Ck778090

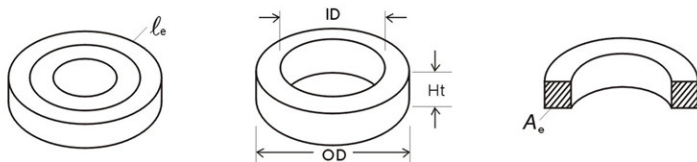
**铁硅铝特殊磁芯规格对照表 / Sendust Special Dimensions Reference Table**

AZE Part No.	Magnetics Part No.	A <sub>s</sub> (nH/N <sup>2</sup> )	涂层前 Before Coating			涂层后 After Coating			A <sub>s</sub> cm <sup>2</sup>	ℓ <sub>e</sub> cm	V cm <sup>3</sup>
			OD (Max) mm	ID (Min) mm	Ht (Max) mm	OD (Max) mm	ID (Min) mm	Ht (Max) mm			
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	2.359
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	20.3	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	77894A7HT19	120	26.9	14.7	18	27.69	14.10	19	1.050	6.35	6.668
AS106-075AE18	77935A7HT19	151	26.9	14.7	18	27.70	14.10	19	1.050	6.35	6.668
AS106-125AE18	77930A7HT19	253	26.9	14.7	18	27.70	14.10	19	1.050	6.35	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

### 磁性材料的术语

- (1) 磁滞回线：  
铁磁体从正向至反向，再至正向反复磁化至技术饱和一周，所得的B与H的闭合关系曲线称为磁滞回线，也称B-H曲线。
- (2) 饱和磁感应强度：  
(饱和磁通密度) 磁性体被磁化到饱和状态时的磁感应强度。在实际应用中，饱和磁感应强度往往是指某一指定磁场（基本上达到饱和时的磁场）下的磁感应强度。
- (3) 剩磁感应强度：  
从磁性体的饱和状态，把磁场（包括自退磁场）单调减小到0的磁感应强度。
- (4) 磁通密度矫顽力：  
它是从磁性体的饱和磁化状态，沿饱和磁滞回线单调改变磁场强度，使磁感应强度B减小到0时的磁场强度。
- (5) 内禀矫顽力：  
从磁性体的饱和磁化状态使磁化强度M减小到0的磁场强度。
- (6) 磁能积：  
在永磁体的退磁曲线上的任意点的磁感应强度和磁场强度的乘积称为磁能积；其中一点对应的B与H乘积的最大值称为最大磁能积(BH)<sub>max</sub>。
- (7) 起始磁导率：  
磁性体在磁中性状态下磁导率的极限值。
- (8) 温度系数：  
在两个给定温度之间，被测的变化量除以温度变化量。
- (9) 磁导率的比温度系数：  
磁导率的温度系数与磁导率的比值。
- (10) 居里温度：  
在此温度上，自发磁化强度为零，即铁磁性材料（或亚铁磁性材料）由铁磁状态（或亚铁磁状态）转变为顺磁状态的临界温度。

### 磁粉芯的有效面积与有效磁路长度



$$A_e = \frac{OD-ID}{2} \times Ht$$

$$l_e = \frac{OD+ID}{2} \times \pi$$

$$V = l_e \times A_e$$

$A_e$ : 有效磁粉芯面积 (cm<sup>2</sup>) 与磁芯的横截面积相等  
 $l_e$ : 有效磁路长度或称平均磁路长度 (cm)  
 $V$ : 磁芯体积 (cm<sup>3</sup>)  
 OD: 磁芯外径 (mm)  
 ID: 磁芯内径 (mm)  
 Ht: 磁芯高度 (mm)  
 $W$ : 磁芯最小窗口面积 (cm<sup>2</sup>)  
 1英寸 (inches) = 10<sup>3</sup>mil = 25.4mm

### 磁路设计公式 / Magnetic Design Formulas

#### 磁芯电感

一个绕线磁芯的电感可以根据下面的公式计算

- 一个绕线磁芯的电感可以根据下面的公式计算

$$L = \frac{4.0 \pi \mu N^2 A_e}{l_e 10^3}$$

L=电感 (μH)                      μ=有效磁导率                      N=线圈匝数  
 Ae=有效横截面积 (cm<sup>2</sup>)                      le=有效磁路长度 (cm)

- 一个绕有一定匝数磁芯的电感也可以根据其电感因数计算

$$L = A_L N^2 10^{-3}$$

LN=绕有N匝数圈磁芯的电感 (μH)                      AL=电感因数 (nH/N<sup>2</sup>)                      N=线圈匝数

### Magnetic Design Formula

#### / Inductance of wound core

- The inductance of a wound core can be calculated from the core geometry by using the following equation:

$$L = \frac{4.0 \pi \mu N^2 A_e}{l_e 10^3}$$

L = inductance (μH)                      μ=core permeability                      N = number of turns  
 Ae = core cross section (cm<sup>2</sup>)                      Le = core magnetic path length(cm)

- The inductor for a given number of turns is related to the inductance factor listed by:

$$L = A_L N^2 10^{-3}$$

LN = inductance for N turns (μH)                      AL = inductance factor (nH/N<sup>2</sup>)                      N = number of turns

### 磁导率，磁通密度和磁场强度

/ Permeability, Flux density and magnetizing force

- 根据安培环路定律和法拉第定律，磁导率，磁通密度和磁场强度可依据以下公式计算：

$$H = \frac{0.4\pi NI}{l_e}$$

H=磁场强度(Oe)    N=线圈匝数    I=电流(A)    Ie=有效磁路长度(cm)

$$B_m = \frac{E_{rms} 10^8}{4.44 f N A_e} \quad \mu = \frac{B}{H}$$

Bm=峰值磁通密度(Gs)    Erms=通过线圈的正弦电压有效值(V)  
Ae=磁芯有效横截面积(cm<sup>2</sup>)    f=正弦电压频率(Hz)

### Permeability, Flux density and magnetizing force

- Amper's law and Faraday's law show the relations of permeability, Flux density and magnetic force of wound core.

$$H = \frac{0.4\pi NI}{l_e}$$

H = magnetic force(Oe)    N = number of turns    I = peak magnetizing current ( A )  
Ie = effective magnetic path length ( cm )

$$B_m = \frac{E_{rms} 10^8}{4.44 f N A_e} \quad \mu = \frac{B}{H}$$

Bm = maximum flux density ( Gs )    Erms = voltage across coil ( V )  
Ae = effective cross section( cm<sup>2</sup>)    f = frequency ( Hz )

### 有效磁路长度 / Effective Magnetic Path Length

- 环形磁粉芯，有效磁路面积 ( A ) 与横截面面积相同。有效磁路长度可由下面的公式计算：

$$l_e = \frac{\pi(OD-ID)}{\ln\left(\frac{OD}{ID}\right)}$$

Le=磁芯有效磁路长度 ( mm )    OD=磁粉芯外径 ( mm )    ID=磁粉芯内径 ( mm )

### 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:

$$l_e = \frac{\pi(OD-ID)}{\ln\left(\frac{OD}{ID}\right)}$$

le = effective magnetic path length ( mm )    OD = outside diameter of core ( mm )  
ID = inside diameter of core ( mm )

### 品质因数Q / Q factor

- 环形磁粉芯，有效磁路面积 ( A ) 与横截面面积相同。有效磁路长度可由下面的公式计算：

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

Q=品质因素     $\omega = 2\pi f$ (Hz)    L=电感 ( H )    Rdc=绕线电阻 (  $\Omega$  )  
Rac=磁芯损耗引起的阻抗 (  $\Omega$  )    Rcd=绕线介电损耗引起的阻抗 (  $\Omega$  )

## 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 = quality factor     $\omega$  = ( Hz )    L = Inductance ( H )    R<sub>dc</sub> = DC winding resistors (  $\Omega$  )  
R<sub>ac</sub> = resistance due to core loss (  $\Omega$  )    R<sub>d</sub> = resistance due to winding dielectric loss (  $\Omega$  )

## 磁芯损耗 / Core loss

- 根据安培环路定律和法拉第定律，磁导率，磁通密度和磁场强度可依据以下公式计算：

$$\frac{R_{ac}}{\mu L} = a B_m f + c f + e f^2$$

R<sub>ac</sub> = 磁芯损耗引起的阻抗 (  $\Omega$  )    a = 磁滞损耗系数  
c = 剩余损耗系数    e = 涡流损耗系数

## 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.

$$\frac{R_{ac}}{\mu L} = a B_m f + c f + e f^2$$

R<sub>ac</sub> = core loss resistance (  $\Omega$  )    A = hysteresis loss coefficient  
C = residual loss coefficient    E = eddy current loss coefficient

## 导线表 / Wire Table

AWG 导线规格	导线直径	导线截面积	电阻At20°C		电流容量 ( A/cm <sup>2</sup> )			
	cm	Cm <sup>2</sup> ( ×10 <sup>-3</sup> )	10 <sup>-3</sup> Ω/ cm	裸线截面积 cm <sup>2</sup> ( ×10 <sup>-3</sup> )	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	13808	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	0.00782	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

## 一、如何计算电感量

在AT130-52的磁芯上均匀绕线47TS，计算其电感量。

1 先查AT130-52的电感因子 $A_L$ 为79nH/N<sup>2</sup>

2 依据公式 $L=A_L \cdot N^2$ 计算，则 $L=79 \times 47^2=174.511\mu\text{H}$

3 由于考虑到 $A_L$ 值电感系数有 $\pm 10\%$ 的偏差，则其电感量应在 $174.5 \pm 10\%$ 范围内。

## 二、如何计算绕线匝数

选用AS106-125铁硅铝磁环的电感器，其电感量为165 $\mu\text{H}$ ，其绕线匝数应为多少？

1、根据电感量公式 $L=A_L \cdot N^2$ ， $N^2=\frac{L}{A_L}$ 查AS106-125的电感因子

$A_L$ 为157nH/N<sup>2</sup>，磁性偏差 $\pm 8\%$ ，则  $A_{L \min}=157 \times 0.92=144.4\text{nH}/\text{N}^2$

$A_{L \max}=157 \times 1.08=169.5\text{nH}/\text{N}^2$

2、 $N_{\max}=\sqrt{\frac{L}{A_{L \min}}}=\sqrt{\frac{165 \times 10^3 \text{nH}}{144.4}}=33.8\text{Ts}=34\text{Ts}$

$N_{\max}=\sqrt{\frac{L}{A_{L \max}}}=\sqrt{\frac{165 \times 10^3 \text{nH}}{169.5}}=31.2\text{Ts}=31\text{Ts}$

从上面计算可知，绕线匝数可选择31Ts-34Ts之间，具体的匝数可以根据磁芯的实际电感因子而定。

## 三、如何计算直流偏磁场下的电感量

选用AS130-060铁硅铝磁环，绕30TS，直流电流 $I=12.5$ 时其电感量是多少？

1、查产品目录 AS130-060的磁路长度 $\ell=8.147\text{mm}$

2、根据公式  $H=\frac{0.4RN I}{\ell}=\frac{0.4 \times 3.14 \times 36 \times 12.5}{8.147}=69.3\text{Oe}$

3、查产品目录“磁导率与直流偏磁场的对应曲线”，可以看出，在 $H=70\text{Oe}$ 时，其磁导率为初始磁导率的60%

4、其电感量中心值在70Oe时应为  $L=A_L \cdot N^2 \times 60\%$  ( $A_L$ 查目录为61)  
 $=61 \times 36^2 \times 60\%=47433.6\text{nH}=47.4\mu\text{H}$

考虑到磁性偏差 $\pm 8\%$ ，所以其最低电感量应为 $47.4 \times 92\%=43.6\mu\text{H}$

## 四、如何计算有效磁导率

有一款带喷涂但无标识码的磁环，经测试其外径 $OD=23.4\text{mm}$

内径 $ID=13.5\text{mm}$ ，高度 $Ht=8.1\text{mm}$

1、先测量电感量：用 $\Phi 0.29$ 铜线绕10Ts，测量出电感量 $L=9.2\mu\text{H}@100\text{Kz}/\text{V}$

2、计算磁芯的截面积 $A_e$ 和磁路长度 $\ell$ 的计算：

$$A_e = \frac{OD-ID}{2} \times Ht = \frac{22.9-14.0}{2} \times 7.6 = 33.82\text{mm}^2 = 0.3382\text{cm}^2$$

$$\ell = \frac{OD+ID}{2} \times \pi = \frac{22.9+14.0}{2} \times 3.14 = 57.933\text{mm} = 5.7933\text{cm}$$

$$3、根据公式  $L = \frac{4\pi A_e \mu_e N^2}{\ell} \mu\text{e} = \frac{L \ell}{4\pi A_e N^2} = \frac{9.2 \times 10^3 \times 5.7933}{4 \times 3.14 \times 0.3382 \times 10^2} = 125.47$$$

则该磁环的磁导率为125左右。