致力磁性科技 深耕绿能之芯



金属软磁粉芯产品 Magnetic Powder Cores











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规格尺寸概括 Specifications





雕刻尺寸范围(Size range by CNC): 98mm*40mm*30mm 雕刻周期(Lead time by CNC): 7-15 days



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铁硅铝 Sendust Cores (SS 系列 / SS Series)

铁硅铝磁粉芯由85%的铁、9.6%的硅、5.4%铝构成,主要是替代铁粉芯,损耗比铁粉芯低80%,可在50Hz~2MHz频率范 围内使用;饱和磁通密度在1.05T左右;磁导率从26—125;磁滞伸缩系数接近零,在不同的频率下工作时无噪声产生,比MPP

有更高的DC偏压能力,具有最佳的性能价格比。主要应用于交流电感、输出电感、线路滤波器、功率因数校正电感等。 大型铁硅铝应用于大电流 (功率)电感器、太阳能转换、UPS 不断电系统、混合动力汽车、风能转换和其他大电流场合, 有时也替代气隙铁氧体作变压器铁芯使用。

The sendust core is typically composed of 85% Fe, 9.6% Si, and 5.4% Al. It is mainly used to replace the iron powder core. Its loss is 80% lower than that of the iron powder core. It can be used in the frequency range of 50Hz to 2MHz; the saturation magnetic flux density is about 1.05T; the magnetic permeability is from 26 to 125; the hysteresis coefficient is close to zero, and there is no noise when working at different frequencies. It has higher DC bias capability than MPP and has the best performance-price ratio. The sendust core is mainly used in AC inductors, output inductors, line filters, power factor correction inductors, etc. Large-scale sendust is used in high-current (power) inductors, solar energy conversion, UPS, hybrid electric vehicles, wind energy conversion and other high-current applications, and sometimes replaces air-gap ferrite for transformer cores.

铁硅 FeSi Cores (SK 系列 / SK Series)

铁硅磁粉芯是由6.5%的硅和93.5%的铁制成。饱和磁通密度在1.6T左右;磁导率范围26~90;FeSi磁芯是一种名副其 实的高温材料,不存在热老化问题,它的磁芯损耗比铁粉芯的更低,并具有优异的直流偏置性能,主要应用于PFC电路、 新能源(太阳能、风能、混合动力)逆变器、不间断电源(UPS)等。

The FeSi core is typically composed of 6.5% Si and 93.5% Fe. Its saturation magnetic flux density is about 1.6T; the magnetic permeability ranges from 26 to 90; the FeSi core is a veritable high-temperature material, and there is no thermal aging problem. Its core loss is lower than that of the iron powder core, and it has excellent DC bias performance. The FeSi core is mainly used in PFC circuits, new energy (solar, wind, hybrid) inverters, uninterruptible power supplies (UPS), etc.

铁硅二代 FeSi-2 Cores (SF 系列 / SF Series)

铁硅二代产品直流偏置特性和功率损耗特性与非晶磁粉芯相当,主要应用于家电、分布式光伏逆变器等。和高磁通磁粉芯相比,SF系列是一个较经济的选择;和铁硅铝相比,其直流偏置性能优势明显;与SK系列相比,其损耗性能也大幅提升。 The DC bias characteristics and power loss characteristics of the second-generation FeSi cores are equivalent to those of amorphous magnetic powder cores, and they are mainly used in home appliances, distributed photovoltaic inverters, etc. Compared with high flux magnetic powder cores, the SF type is a more economical choice; compared with sendust, its DC bias performance has obvious advantages; compared with SK series, its performance of core loss is also greatly improved.

材料比对 Material Comparison			
特性项目 Item	铁硅铝 Sendust	铁硅 FeSi	铁硅二代 FeSi-2
SinoMag P/N	SS	SK	SF
µe60 DC BIAS @1000e LI/L0	48%	73%	62%
µe60 Core Loss @50kHz/100mT	300	600	380
成本 Cost	1.05	1.6	1.2

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铁硅铝直流偏置曲线

DC Bias Properties of Sendust

Permeability VS DC Bias





频率特性曲线

Frequency Properties Curve of Sendust

Permeability Frequency Properties Curve



损耗特性曲线 Core Loss



Flux Density(kGauss)

铁硅铝温度特性曲线

Temperature Properties Curve of Sendust

Permeability Temperature Properties



铁硅铝60μ-125μ磁心损耗曲线 Core Loss Properties of Sendust 60µ-125µ



铁硅铝26μ-40μ磁心损耗曲线 **Core Loss Properties of Sendust 20µ-40µ**

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铁硅直流偏置曲线 DC Bias Properties Curve of FeSi

SK Series Permeability VS DC Bias



铁硅频率特性曲线 FeSi Frequency Properties Curve

Permeability Frequency Curve



磁芯损耗 Core Loss





Flux Density(kGauss)

铁硅60µ-90µ 磁心损耗曲线 Core Loss Propertes Curve of FeSi 60µ-90µ

铁硅温度特性曲线 Temperature Properties Curve of FeSi

Permeability Temperature Properties curve



SK026 Core Loss



铁硅26μ磁心损耗曲线

Core Loss Properties Curve of FeSi 26µ

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铁硅二代 The second generation FeSi - SF Series







- SF Series Core Loss

Properties Curve





DC Magnetic Field (O_e)





SF系列磁导率频率特性曲线 SF Series Frequency **Properties Curve**

SF系列直流叠加特性曲线

SF Series DC Bias

Properties Curve





SF系列磁导率温度特性曲线

SF Series Permeability

Temperature Properties Curve