

SOFT MAGNETIC MATERIALS

POWDER CORE

[软磁材料-金属粉芯]

朗峰推出的合金磁粉芯是由铁基合金材料的粉末，经过表面绝缘包覆与无机粘合剂混合压制，以特殊的高温热处理工艺而成的一种软磁材料。其具有高饱和磁通密度、分布式气隙、良好的温度稳定性、低损耗和出色的直流偏置特性等特点，被广泛应用于新能源汽车、光伏储能、工业自动化与电力电子等领域。

The alloy magnetic powder core launched by Londerful is a soft magnetic material made from the powder of iron-based alloy materials. It is processed through surface insulation coating, mixing and pressing with an inorganic binder, and then undergoes a special high-temperature heat-treatment process. It has characteristics such as high saturation magnetic flux density, distributed air gaps, good temperature stability, low loss, and excellent DC bias characteristics. It is widely used in fields such as new energy vehicles, photovoltaic energy storage, industrial automation, and power electronics.

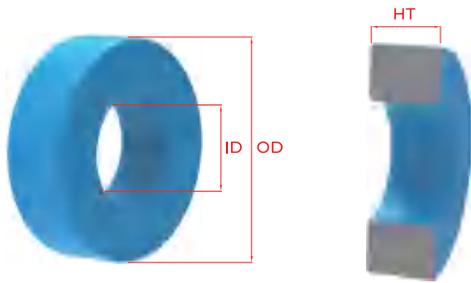
LFHB系列

高直流偏置环形金属磁粉芯

High DC-Bias toroidal magnetic powder cores

LFHB是由6%Si和94%Fe的合金粉末制成的一种压制粉芯，拥有优秀的直流偏置能力，低于铁粉芯的磁芯损耗，并且无热老化问题，能有效适用于高频、大电流的场景，在对损耗无严格要求情况下，能在满足性能的前提下有效降低成本。

特征概览



关键参数

成分: 铁硅

磁导率: 26/40/60/75/90

喷涂颜色: 蓝色

饱和磁通密度: 1.2-1.5T

Key Parameters

Composition: Iron silicon

Magnetic permeability: 26/40/60/75/90

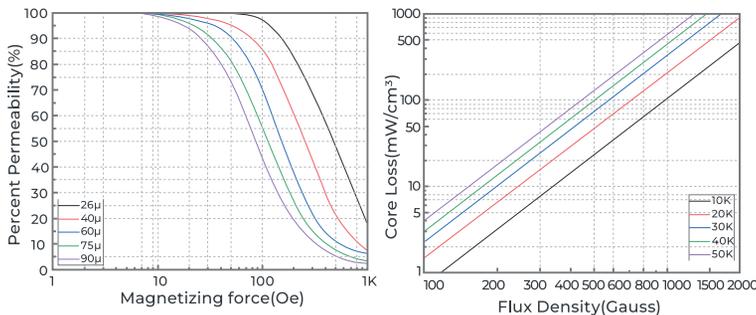
Spray color: blue

Saturation magnetic flux density: 1.2-1.5T

为满足客户的需求，该系列产品推出高直流偏置与低损耗、直流偏置 & 低损耗兼顾共三个大系列，同时还有环形与异形各两种形状供客户选择。除本手册列出的产品外，公司可根据客户需求，通过调整磁芯成分、生产工艺和磁芯形状来定制磁芯，做到一对一定制化服务，后续也将持续推出其他性能的子系列，以满足客户的不同需求。

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性能曲线



主要应用

UPS/服务器电源

光伏逆变器、储能变流器

车载OBC、DC/DC模块

直流充电桩

Main Applications

UPS/Server Power Supply

Photovoltaic Inverter, Energy Storage Converter

On-board OBC, DC/DC module

DC charging pile

LFHB系列详细规格

Part Number	Permeability(μ)	AL \pm 8%	Window Area(Wa)	Cross Section(A)	Magnetic Path Length(L)	Volume(V)	Dimensions(mm) OD(max)*ID(min)*HT(max)	
							Before coating	After coating
LFHB106026	26	32	1.560cm ²	0.654cm ²	6.35cm	4.154cm ³	26.92*14.73*11.18	27.70*14.10*11.99
LFHB106040	40	50						
LFHB106060	60	75						
LFHB106075	75	94						
LFHB106090	90	113						

LFHB130026	26	28	2.930cm ²	0.672cm ²	8.15cm	5.477cm ³	33.02*19.94*10.67	33.83*19.30*11.61
LFHB130040	40	41						
LFHB130060	60	61						
LFHB130075	75	76						
LFHB130090	90	91						

LFHB157026	26	35	4.270cm ²	1.072cm ²	9.84cm	10.549cm ³	39.88*24.13*14.48	40.69*23.32*15.37
LFHB157040	40	54						
LFHB157060	60	81						
LFHB157075	75	101						
LFHB157090	90	121						

LFHB158026	26	53	3.550cm ²	1.537cm ²	9.51cm	15.043cm ³	40.13*22.08*17.00	40.69*21.27*17.89
LFHB158040	40	81						
LFHB158060	60	122						
LFHB158075	75	153						
LFHB158090	90	183						

LFHB184026	26	59	4.270cm ²	1.990cm ²	10.74cm	21.373cm ³	46.74*24.13*18.03	47.63*23.32*18.92
LFHB184040	40	90						
LFHB184060	60	135						
LFHB184075	75	169						
LFHB184090	90	202						

LFHB250026	26	86	7.725cm ²	3.675cm ²	14.37cm	52.810cm ³	62.00*32.60*25.00	63.09*31.31*26.26
LFHB250040	40	128						
LFHB250060	60	192						
LFHB250075	75	240						
LFHB250090	90	288						

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LFLC系列

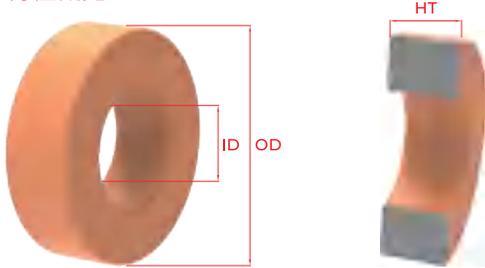
低损耗环形金属磁粉芯

Low loss toroidal magnetic powder cores

LFLC是含9% Si、85% Fe、6% Al的压制粉芯，由合金粉末制成。它低损耗、饱和磁感应强度相对高，适用于损耗要求高、直流偏置要求一般场景，如PFC电感等。铁硅铝磁芯无热老化问题，能在200°C左右长期工作，性价比高。

LFLC is a pressed powder core containing 9% silicon (Si), 85% iron (Fe), and 6% aluminum (Al), made from alloy powder. It features low loss and relatively high saturation magnetic flux density, and is suitable for scenarios with high requirements for loss and general requirements for DC bias, such as in PFC inductors and so on. The iron-silicon-aluminum magnetic core has no thermal aging problem, can work for a long time at around 200°C, and has a high cost-performance ratio.

特征概览



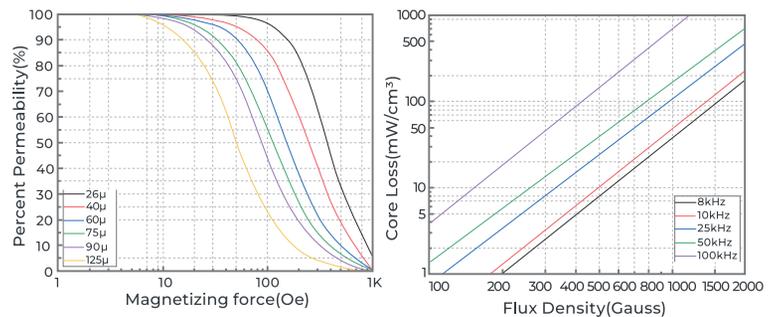
关键参数

成分: 铁硅铝
磁导率: 26/40/60/75/90/125
喷涂颜色: 橘色
饱和磁通密度: 0.95-1.25T

Key Parameters

Composition: Aluminum alloy
Magnetic permeability: 26/40/60/75/90/125
Spray color: orange
Saturation flux density: 0.95-1.25T

性能曲线



主要应用

UPS/服务器电源
光伏逆变器、储能变流器
车载OBC、DC/DC模块
直流充电桩

Main Applications

UPS/Server Power Supply
Photovoltaic Inverter, Energy Storage Converter
On-board OBC, DC/DC module
DC charging pile

LFLC系列详细规格

Part Number	Permeability(μ)	AL \pm 8%	Window Area(Wa)	Cross Section(A)	Magnetic Path Length(L)	Volume(V)	Dimensions(mm) OD(max)•ID(min)•HT(max)	
							Before coating	After coating
LFLC106026	26	32	1.560cm ²	0.654cm ²	6.35cm	4.154cm ³	26.92•14.73•11.18	27.70•14.10•11.99
LFLC106040	40	50						
LFLC106060	60	75						
LFLC106075	75	94						
LFLC106090	90	113						
LFLC106125	125	157						
LFLC130026	26	28	2.930cm ²	0.672cm ²	8.15cm	5.477cm ³	33.02•19.94•10.67	33.83•19.30•11.61
LFLC130040	40	41						
LFLC130060	60	61						
LFLC130075	75	76						
LFLC130090	90	91						
LFLC130125	125	127						
LFLC157026	26	35	4.270cm ²	1.072cm ²	9.84cm	10.549cm ³	39.88•24.13•14.48	40.69•23.32•15.37
LFLC157040	40	54						
LFLC157060	60	81						
LFLC157075	75	101						
LFLC157090	90	121						
LFLC157125	125	168						
LFLC158026	26	53	3.550cm ²	1.537cm ²	9.51cm	15.043cm ³	40.13•22.08•17.00	40.94•21.27•17.89
LFLC158040	40	81						
LFLC158060	60	122						
LFLC158075	75	153						
LFLC158090	90	183						
LFLC158125	125	254						
LFLC184026	26	59	4.270cm ²	1.990cm ²	10.74cm	21.373cm ³	46.74•24.13•18.03	47.63•23.32•18.92
LFLC184040	40	90						
LFLC184060	60	135						
LFLC184075	75	169						
LFLC184090	90	202						
LFLC184125	125	281						
LFLC250026	26	83	7.725cm ²	3.675cm ²	14.37cm	52.810cm ³	62.00•32.60•25.00	63.09•31.31•26.26
LFLC250040	40	128						
LFLC250060	60	192						
LFLC250075	75	240						
LFLC250090	90	288						
LFLC250125	125	400						

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LFHL系列

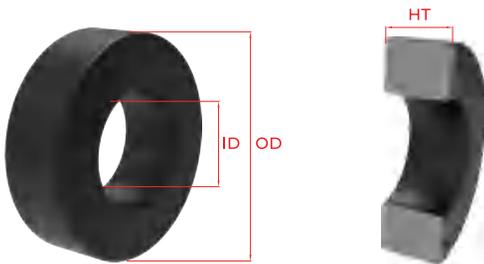
高直流偏置&低损耗环形金属磁粉芯

High DC-Bias & Low loss toroidal magnetic powder cores

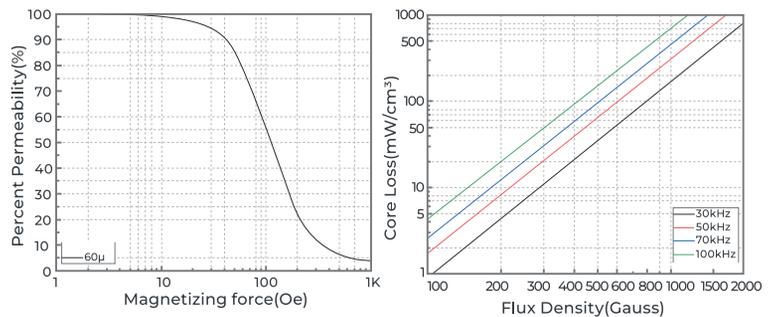
LFHL是由50%Fe与50%Ni的合金粉末制成的一种压制粉芯，行业内通常也称为高磁通磁粉芯，是一款结合了高直流偏置、高饱和磁通密度与低磁性损耗的磁芯，能有效胜任大功率、大直流偏置等各种应用场合的要求。因其成分一半是由镍合金粉末制成，价格对比其他磁粉芯稍微昂贵。

LFHL is a pressed powder core made of 50% Fe and 50% Ni alloy powder, commonly known as high flux magnetic powder core in the industry. It is a magnetic core that combines high DC bias, high saturation flux density, and low magnetic loss, and can effectively meet the requirements of various applications such as high power and high DC bias. Because half of its composition is made of nickel alloy powder, the price is slightly higher compared to other magnetic powder cores.

特征概览



性能曲线



关键参数

成分: 铁镍

喷涂颜色: 黑色

磁导率: 40/60/75/90

饱和磁通密度: 1.5T

主要应用

通信电源

工业电源

服务器电源

车载OBC、DC/DC模块

Key Parameters

Composition: Iron-Nickel

Spray color: black

Magnetic permeability: 40/60/75/90

Saturation magnetic flux density: 1.5T

Main Applications

Communication power supply

Industrial power supply

Server power supply

Automotive OBC, DC/DC module

LFHL系列详细规格

Part Number	Permeability(μ)	AL \pm 8%	Window Area(Wa)	Cross Section(A)	Magnetic Path Length(L)	Volume(V)	Dimensions(mm) OD(max) \cdot ID(min) \cdot HT(max)	
							Before coating	After coating
LFHL106040	40	50	1.560cm ²	0.654cm ²	6.35cm	4.154cm ³	26.92 \cdot 14.73 \cdot 11.18	27.70 \cdot 14.10 \cdot 11.99
LFHL106060	60	75						
LFHL106075	75	94						
LFHL106090	90	113						

LFHL130040	40	41	2.930cm ²	0.672cm ²	8.15cm	5.477cm ³	33.02 \cdot 19.94 \cdot 10.67	33.83 \cdot 19.30 \cdot 11.61
LFHL130060	60	61						
LFHL130075	75	76						
LFHL130090	90	91						

LFHL157040	40	54	4.270cm ²	1.072cm ²	9.84cm	10.549cm ³	39.88 \cdot 24.13 \cdot 14.48	40.69 \cdot 23.32 \cdot 15.37
LFHL157060	60	81						
LFHL157075	75	101						
LFHL157090	90	121						

LFHL158040	40	81	3.550cm ²	1.537cm ²	9.51cm	15.043cm ³	40.13 \cdot 22.08 \cdot 17.00	40.94 \cdot 21.27 \cdot 17.89
LFHL158060	60	122						
LFHL158075	75	153						
LFHL158090	90	183						

LFHL184040	40	90	4.270cm ²	1.990cm ²	10.74cm	21.373cm ³	46.74 \cdot 24.13 \cdot 18.03	47.63 \cdot 23.32 \cdot 18.92
LFHL184060	60	135						
LFHL184075	75	169						
LFHL184090	90	202						

LFHL250040	40	128	7.725cm ²	3.675cm ²	14.37cm	52.810cm ³	62.00 \cdot 32.60 \cdot 25.00	63.09 \cdot 31.31 \cdot 26.26
LFHL250060	60	192						
LFHL250075	75	240						
LFHL250090	90	288						

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POWDER CORE

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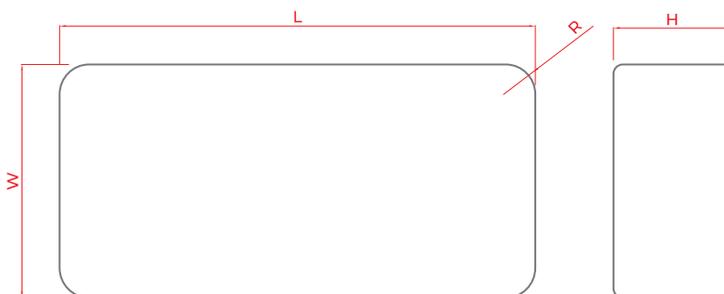
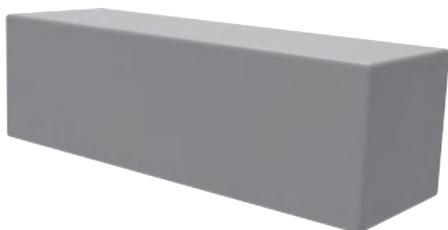
LF异形系列

Special magnetic powder cores

为了满足客户不同应用场景的不同需求，我司除常规环形磁芯外，还提供了异形磁芯供客户选择。

To meet the diverse needs of our customers in various application scenarios, our company offers not only conventional ring-shaped magnetic cores but also provides custom-shaped magnetic cores for customer selection.

详细规格



Part Number	L(mm)	W(mm)	H(mm)	R(mm)
403220	42	32	20.25	5
403420	40	34	20.25	8
402720	40	27	20.5	5
403020	39.8	30	20.5	8
432018	43	20	18.5	5
422218	42.8	22.8	18.5	8