SHINCORE新核科技
SHIN CORE TECHNOLOGY (HK) LIMITED

◆ 深圳新核瑞科技有限公司

SHINCORE TECHNOLOGY (HK) LIMITED is a HK-based company with manufacturing plants in inland China and sales offices in HK and Shenzhen. It has specialized in the research, design, manufacture and distribution of all kinds of soft magnetic materials for many years.

Our products are: perm alloy core, amorphous core, Nan crystalline core...etc Given their high permeability, low loss and high saturation flux density, they are widely used for designing and manufacturing high performance electronic components such as filters, inductors, zero phase current transformers, choke coil, current transformers, circuit breaker, etc. These components can be applied to a wide range of magnetoelectricity compatible systems of science technology and industry, as well as to civic areas.

Best quality and service is our fundamental, constant innovation is our mission. We have built our success on clear and straightforward communication with clients and meticulous attention to their individual requirements.

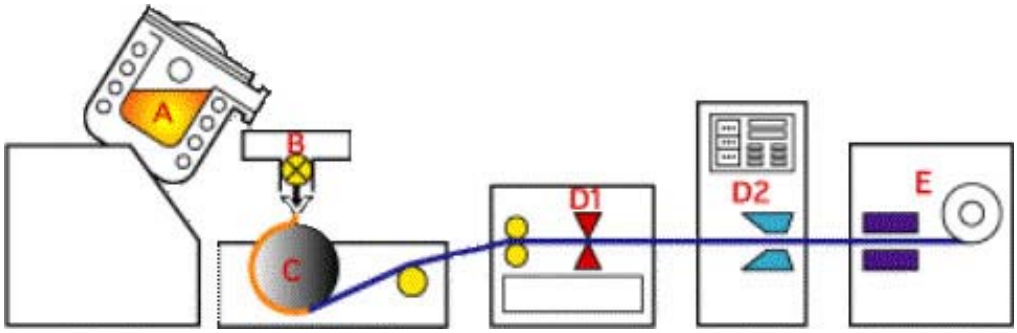
Manufacturing process of Fe-based amorphous and nanocrystalline ribbon

1)Manufacturing process

(1）Fe Si B ------Amorphous

(2）Fe Si B Nb Cu ------Nanocrystalline

Process: Cooling liquid metal to solid ribbon at no less than 1000000℃/S



Fe-based Amorphous ribbon(1K101)

Main ingredients:

Iron：77.5%、 silicon：13.5% 、boron：9%. Its saturation flux density can reach 1.56T and magnetic performance is much better than silicon with competitive price. It's the most suitable material to replace silicon as cores for medium and low frequency transformers. Such as distributing transformer, medium-frequency transformer, high-power anti-saturation inductor, inductor, current transformer…etc.

Characteristics:

High saturation flux density, high permeability, low loss, low excitation current, good temperature stability.

Applications:

- ✧ Distributing, pulse, medium power supply, switch power supply transformer;
- ✧ Filter inductor;
- ✧ PFC inductor; reactor
- ✧ Anti-saturation inductor;
- ✧ Power, AC/DC current, voltage transformer;

1）Physical property of Fe-based amorphous material:

Bs	1.56 T	Saturation magnetostriction coefficiency	27×10^{-6}
Tc	410 °C	density	7.2 g/cm3
Tx	550 °C	Specific resistance	130muOhm-cm
Hv	960kg/mm2	Working temperature	-55°C -130°C

2）Magnetic property of Fe-baed amorphous material:

	No magnetic field annealing	Transverse magnetic field annealing	Longitudinal magnetic field annealing
Max permeability	> 20×10^{4}	> 2×10^{4}	> 25×10^{4}
Saturation flux density	1.56T	1.56T	1.56T
Residual magnetic flux density	0.6-1.0T	< 0.5T	< 1.2T
Coercive force	< 6A/m	< 4A/m	< 2.5A/m
Core loss（50Hz 1.4T）	< 0.13w/Kg	< 0.2w/Kg	< 0.25w/Kg
Core loss（400Hz 1.4T）	< 1.25w/Kg	< 1.8w/Kg	< 2w/Kg
Core loss（8000Hz 1.4T）	< 60w/Kg	< 80w/Kg	< 100w/Kg
Core loss rate per temperature -55°C -125°C	< 15%	< 15%	< 15%

Fe-based nanocrystalline

Main ingredients:(1K107)

Nanocrystalline material consists of Iron：73.5%、Silicon：13.5%、Boron：9% and copper 1%、Niobium 3% in which copper and niobium are necessary ingredients to form the nanocyrstalline structure. It has low price, excellent magnetic performance which almost same as cobolt-based material. It widely used for industrial and civic medium to high frequency transformer and current transformer, inductor…etc. It's been called the further generation of permalloy and ferrite.

Characteristics:

High saturation flux density、high permeability、low coercive force、low core loss、good temperature stability.

Applications:

- ✧ Switch、pulse power transformer； driver transformer;
- ✧ Lan transformer;
- ✧ Common mode choke;
- ✧ Power、AC/DC current transformer； Voltage transformer。
- ✧ Circuit breaker、precise current transformer;
- ✧ Saturated reactor;
- ✧ Magnetic amplifier;
- ✧ Spike killer

1）Physical property of nanocrystalline:

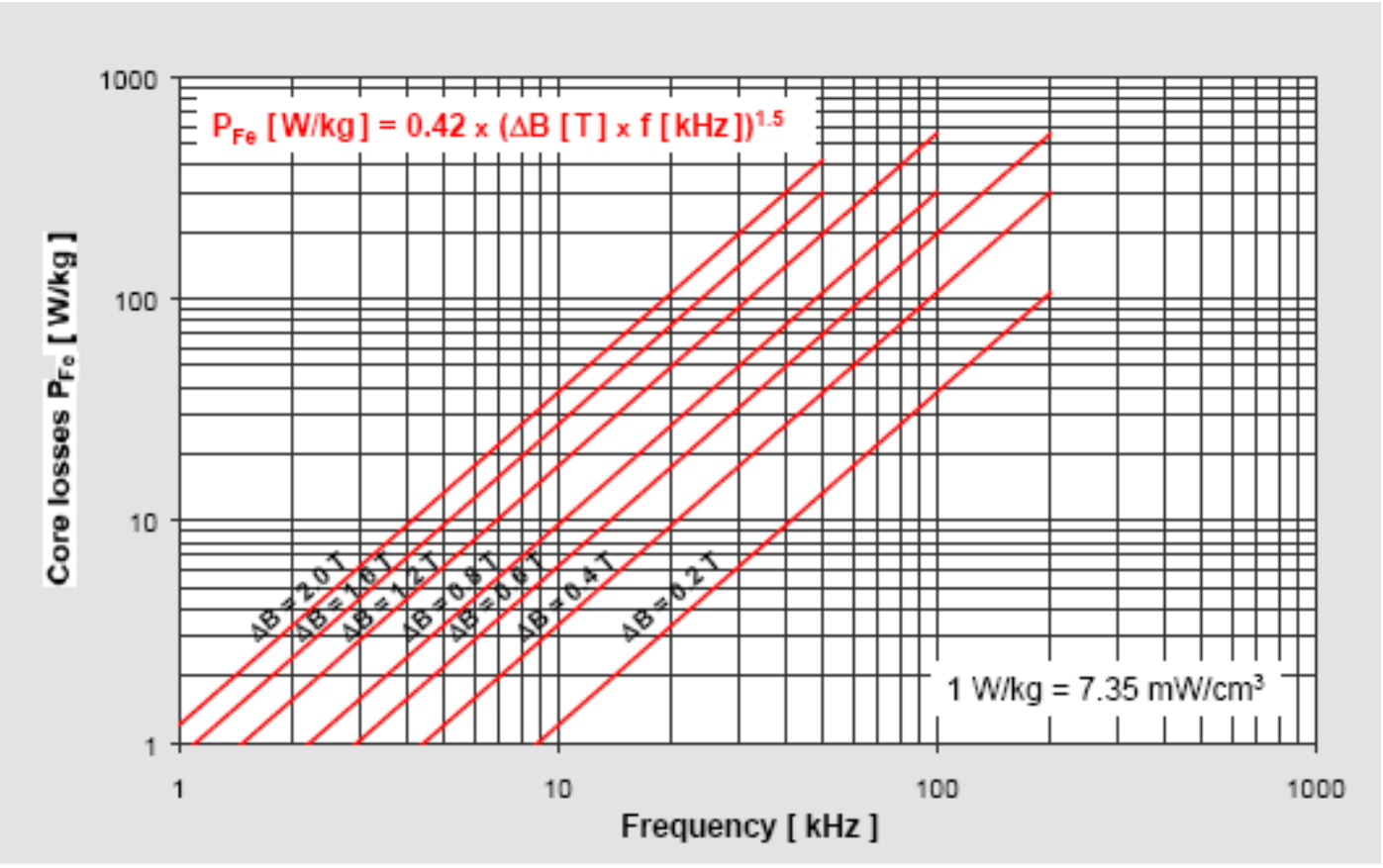
Bs	1.25 T	Saturation magnetostriction coefficiency	$< 2\times10^{-6}$
Tc	560 °C	density	7.2 g/cm3
Tx	510 °C	Specific resistance	130muOhm-cm
Hv	880kg/mm2	Working temperature	-55°C -130°C

2）Magnetic property of nanocrystalline:

	No magnetic field annealing	Transverse magnetic field annealing	Longitudinal magnetic field annealing
Initial permeability	$> 8\times10^{4}$	$> 2\times10^{4}$	$> 1\times10^{4}$
Max permeability	$> 45\times10^{4}$	$> 5\times10^{4}$	$> 50\times10^{4}$
Residual magnetic flux density	< 0.6T	< 0.2T	< 0.85T
Coercive force	< 0.8A/m	< 1.8A/m	< 1.8A/m
Core loss（20KHz 0.5T）	< 25w/Kg	< 50w/Kg	< 90w/Kg
Core loss(100KHz 0.3T）	< 150w/Kg	< 150w/Kg	< 300w/Kg
Core loss rate per temperature -55°C -125°C	< 15%	< 15%	< 15%

3）Property comparison between nanocrystalline and other magnetic material

	Nanocrystalline	Permalloy 1j85	Ferrite
Saturation flux density	1.25T	0.75T	0.5
Saturation magnetostriction coefficiency	< 2	< 2	4
Specific resistance	130	56	106
Tc	560	400	< 200
Residual magnetic flux density	0.2-1.0	/	0.2
(Gs/Oe)	> 80000	> 80000	
(Gs/Oe)	> 450000	> 600000	< 20000
Coercive force	< 2	< 1	6
Core loss（20KHz 0.5T）	< 25w/Kg	/	NA
Core loss（50KHz 0.3T）	< 60w/Kg	/	NA



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PART NUMBER:

COMPANY CODE: SC	APPLICATION	APPLICATION CODE	STATUS OF CORE CASE FOR "C" EPOXY COATING FOR "E" GAP FOR "G"
1	Common mode choke for power application	CMC	
2	Common mode choke for lan application	CMW	
3	AC current transformer	CTA	
4	DC immunity current transformer	CTD	
5	Voltage current transformer	CTV	
6	C core	AFC NFC	
7	Spike killer	PII	
8	PFC	AFS	
9	Magnetic amplifier	MGA	
10	Hall sensor core	HLG	

PRODUCTS: Common mode choke core. PN：SC-CMC

Characteristics:

High saturation flux density（1.25T）；High initial permeability（more than 80000）；
Good temperature stability（-50℃~130℃）；Good performance at high frequency；
High impedance、Good performance of suppressing EMI.

Core dimensions	dimensions case			Effective cross section	Mean path length	AL	AL
Od x Id x H	OD	ID	H	Ae	Le	10 kHz 0.1V	100 kHz 0.1V
mm x mm x mm	mm	mm ref	mm	cm2 ref	cm ref	μH ±30%	μH min
SC-CMC12*8*5C	14.5	6	7	0.08	3.1	22.0	4
SC-CMC15*10*5C	17.5	8	7	0.10	3.9	22.0	4
SC-CMC19*10*5C	21.5	8	7	0.18	4.5	35.0	6.3
SC-CMC16*11*6.5C	18.5	9	8.5	0.13	4.2	26.0	5
SC-CMC19*12*6.5C	21.5	10	8.5	0.18	4.8	32.0	6
SC-CMC22*13*6.5C	24.5	11	8.5	0.23	5.5	37.0	7
SC-CMC16*10*8C	18.5	8	10	0.19	4.0	40.0	7.5
SC-CMC18*11*8C	20.5	9	10	0.22	4.5	43.0	7.5
SC-CMC20*12*8C	22.5	10	10	0.26	5.0	44.0	7.8
SC-CMC25*16*8C	27.5	14	10	0.29	6.4	38.0	7.2
SC-CMC30*20*8C	33	17.5	10	0.32	7.8	35.0	6.7
SC-CMC25*15*10C	28	12.5	12.5	0.41	6.2	56.0	10.2
SC-CMC25*20*10C	28	17.5	12.5	0.20	7.0	24.0	4.8
SC-CMC26*16*10C	29	13.5	12.5	0.41	6.5	54.0	11.5
SC-CMC28*18*10C	30.5	15.5	12.5	0.41	7.2	48.0	9.1
SC-CMC30*20*10C	33	17.5	12.5	0.41	7.9	44.0	8.8
SC-CMC33*23*10C	35.5	20.5	12.5	0.41	8.7	40.0	7.0
SC-CMC33*23*15C	35.5	20.5	18	0.61	8.7	60.0	10.5
SC-CMC40*25*15C	43	22	18	0.92	10.2	78.0	14.0
SC-CMC50*32*20C	53	29	23	1.47	12.8	98.0	18.0
SC-CMC50*40*20C	53	37	23	0.82	14.1	48.0	8.6
SC-CMC59*40*20C	62	37	23	1.55	15.5	85.0	15.0
SC-CMC60*40*25C	63	37	28	2.05	15.7	112.0	20.0
SC-CMC64*40*25C	67	37	28	2.46	16.3	130.0	23.0
SC-CMC65*50*25C	68	47	28	1.53	18.0	72.0	13.0
SC-CMC75*50*25C	78	47	28	2.56	19.6	112.0	20.0
SC-CMC80*50*20C	84	47	23	2.46	20.4	103.0	18.0
SC-CMC80*50*25C	84	47	28	3.00	20.4	128.0	23.0
SC-CMC90*60*20C	94	57	23	2.46	23.5	90.0	16.0
SC-CMC120*70*20C	125	66	24	29.80	4.1	120.0	22.0
SC-CMC120*80*20C	125	76	24	31.40	3.2	88.0	16.0
SC-CMC120*80*25C	125	76	29	31.40	4.1	110.0	20.0
SC-CMC140*100*20C	145	95	25	37.60	3.2	74.0	13.0
SC-CMC140*100*25C	145	95	30	37.60	4.1	92.0	17.0

PRODUCT: **Common mode chock with DC immunity and Unbalanced current immunity.**
PN: SC-CMC

High saturation flux density（1.25T）; High initial permeability（more than 80000）;
Good temperature stability（-50℃~130℃）; Good performance at high frequency;
High impedance、Good performance of suppressing EMI.
With constant impedance and good DC immunity performance.

Core dimensions	dimensions case			Effective cross section	Mean path length	AL	Unbalanced current
Od x Id x H	Da	Id	H	Ae	Le	10 kHz 0.1V	H=N*I*0.4π/Le
mm x mm x mm	mm	mm	mm	cm2	cm	μH	H/(cm)
		ref		ref	ref	±30%	max
SC-CMC20*12*8C	22.5	10	10	0.26	5.0	19	0.12
SC-CMC25*16*8C	27.5	14	10	0.29	6.4	17	0.10
SC-CMC30*20*8C	33	17.5	10	0.32	7.8	15	0.11
SC-CMC25*15*10C	28	12.5	12.5	0.41	6.2	25	0.10
SC-CMC25*20*10C	28	17.5	12.5	0.20	7.0	10.5	0.10
SC-CMC26*16*10C	29	13.5	12.5	0.41	6.5	24	0.12
SC-CMC28*18*10C	30.5	15.5	12.5	0.41	7.2	21	0.11
SC-CMC30*20*10C	33	17.5	12.5	0.41	7.9	20	0.11
SC-CMC33*23*10C	35.5	20.5	12.5	0.41	8.7	17.5	0.11
SC-CMC33*23*15C	35.5	20.5	18	0.61	8.7	26.5	0.10
SC-CMC40*25*15C	43	22	18	0.92	10.2	34.5	0.11
SC-CMC40*25*20C	43	22	23	1.22	10.2	45	0.11
SC-CMC50*32*20C	53	29	23	1.47	12.8	43.3	0.11
SC-CMC50*40*20C	53	37	23	0.82	14.1	21	0.11
SC-CMC59*40*20C	62	37	23	1.55	15.5	37.5	0.10
SC-CMC60*40*25C	63	37	28	2.05	15.7	49	0.11
SC-CMC64*40*25C	67	37	28	2.46	16.3	57	0.10
SC-CMC65*50*25C	68	47	28	1.53	18.0	32	0.11
SC-CMC75*50*25C	78	47	28	2.56	19.6	49.5	0.11
SC-CMC80*50*20C	84	47	23	2.46	20.4	45.5	0.10
SC-CMC80*50*25C	84	47	28	3.00	20.4	56.5	0.11
SC-CMC90*60*20C	94	57	23	2.46	23.5	40	0.12
SC-CMC120*70*20C	125	66	24	29.80	4.1	53	0.11
SC-CMC120*80*20C	125	76	24	31.40	3.2	38.5	0.11
SC-CMC120*80*25C	125	76	29	31.40	4.1	48.5	0.11
SC-CMC140*100*20C	145	95	25	37.60	3.2	32	0.11
SC-CMC140*100*25C	145	95	30	37.60	4.1	40	0.11

Unbalanced current definition:

Unbalanced current was generated from single phase or three phase power supply which will expedite core to get saturated and result in big core loss and lower permeability which will unable filter function.

$I = H * Le / N * 0.4\pi$.

PRODUCT: Common mode choke core.

PN: SC-CMW/ SC-CMC

Applications:
Lan、switch power supply、LED power supply、compact power supply; UPS power supply、 EPS power supply, filter, PFC.

Core dimensions	dimensions epoxy			Effective cross section	Mean path length	AL	AL
Od x Id x H	Da	Id	H	Ae	Le	10 kHz 0.1V	100 kHz 0.1V
mm x mm x mm	mm max	mm min	mm max	cm2 ref	cm ref	μH min	μH min
SC-CMW4.5*2.5*3E	5.2	1.9	3.8	0.024	1.0	10	3.5
SC-CMW5*3*3E	5.7	2.4	3.8	0.024	1.25	9	3.0
SC-CMW6.5*4*4.5E	7.2	3.4	5.2	0.046	1.64	15	4.2
SC-CMW7.5*4*4.5E	8.2	3.4	5.2	0.064	1.8	19	5.5
SC-CMW8*4*4.5E	8.8	4.4	5.2	0.073	1.88	22	6.0
SC-CMW6.5*4*5E	7.2	3.4	5.7	0.051	1.64	17	4.7
SC-CMW7.5*4*5E	8.2	3.4	5.7	0.071	1.8	22	5.8
SC-CMW8*5*5E	8.8	4.3	5.8	0.061	2.0	17	4.5
SC-CMW9*6*5E	9.8	5.3	5.8	0.061	2.3	14	3.8
SC-CMC10*6*5E	10.8	5.3	5.8	0.082	2.5	18	5.0
SC-CMC12*8*5E	13.2	7.2	6.2	0.082	3.1	14	4.0
SC-CMC15*10*6.5E	16.2	9.0	7.7	0.13	3.9	18	5.1
SC-CMC16*11*6.5E	17.4	10.0	7.7	0.13	4.2	17	4.7
SC-CMC22*13*10E	24.1	11.4	12.0	0.37	5.5	34	11.5
SC-CMC26*16*10E	28.2	14.0	12.7	0.41	6.6	30	12.5
SC-CMC30*20*10E	32.4	17.6	12.7	0.41	7.85	26	11.0
SC-CMC36*23*10E	38.4	20.6	12.7	0.53	9.2	29	10.5
SC-CMC40*25*15E	42.7	22.6	17.7	0.92	10.2	45	15.5
SC-CMC40*28*20E	42.6	25.6	22.7	0.98	10.6	46	15.0
SC-CMC45*30*20E	47.8	27.5	22.7	1.23	11.7	51	17
SC-CMC50*30*20E	52.8	27.5	22.7	1.64	12.5	64	21
SC-CMC60*40*20E	63.2	37.5	23.2	1.64	15.7	51	17

Can provide customized dimension and specification.
“E”: epoxy coating.
Ref: For reference only.

PRODUCT: AC current transformer core

PN: SC-CTA

High permeability, low phase error and ratio error. Excellent linearity and good performance of anti-overloading.

Core dimensions	dimensions case			Effective cross section	Mean path length	AL	V/A
Od x Id x H	Da	Id	H	Ae	Le	100Hz 0.3V	mA
mm x mm x mm	mm	mm	mm	cm2	cm	μH	Ma/mV
		ref		ref	ref	ref	UFD
SC-CTA13*9.5*5C	14.4	8.3	6.9	0.07	3.52	25	**
SC-CTA14*10*6.5C	15.2	7.8	8.2	0.1	3.76	35	**
SC-CTA19*14*6.5C	21.3	11.8	8.2	0.13	5.18	32	**
SC-CTA20*14*10C	22.4	11.8	12.3	0.24	5.3	58	**
*SC-CTA21*16*10C	23.2	13.7	12.7	0.24	5.9	55	**
SC-CTA30*20*8C	33	17.8	10.2	0.32	7.85	54	**
SC-CTA28*22*5C	30.5	20	7.1	0.12	7.85	19	**
SC-CTA32*26*5C	35	23.5	7.1	0.12	9.1	17	**
SC-CTA40*25*10C	43	22	13	0.61	10.2	120	**
SC-CTA50*40*10C	53	37	13	0.41	14.1	36	**
SC-CTA60*40*20C	64	37	24	1.64	15.7	130	**
SC-CTA80*50*20C	85	46	25	2.46	20.4	150	**
SC-CTA90*60*20C	95	56	25	2.46	23.5	135	**
SC-CTA120*80*20C	125	76	25	3.28	31.4	130	**

Can provide customized dimension and specification.
SC-CTA：AC-CURRENT TRANSFORMER
*：Special dimension.
**：undefined
Ref: For reference only.

PRODUCT: DC immunity current transformer core.

PN: SC-CTD

High precise, low loss, high permeability.
DC immunity current transformers are widely used for power meter and energy meter.

Core dimensions	dimensions case			Effective cross section	Mean path length	AL	DC CURRENT COMPONENT
Od x Id x H	Da	Id	H	Ae	Le	100Hz 0.3V	
mm x mm x mm	mm	mm	mm	cm2	cm	μH	A
		ref		ref	ref	min	standard
SC-CTD19.5*15*10C	21.5	13	12	0.09	5.4	20	40
SC-CTD20*14*10C	22.5	11.8	12.1	0.24	5.3	35	40
*SC-CTD21*16*10C	24.5	13.6	12.2	0.24	5.9	32	60
SC-CTD24*17*8C	26.2	15.2	10	0.23	6.4	20	60
SC-CTD30*20*8C	32.5	17.8	10.2	0.32	7.85	25	80
SC-CTD33*23*10	34.8	20.8	12.5	0.41	8.79	20	100
SC-CTD40*25*15C	43.2	22.2	18.1	0.92	10.2	42	120
SC-CTD50*32*15C	53.3	29.2	18.3	1.1	12.8	76	150
SC-CTD60*40*20C	63.2	36.8	23.3	1.64	15.7	50	200

SC-CTD:DC immunity current transformer.
*：Special dimension.
Ref: For reference only.

PRODUCT: Amorphous C core.
PN: SC-AFC

Characteristics:

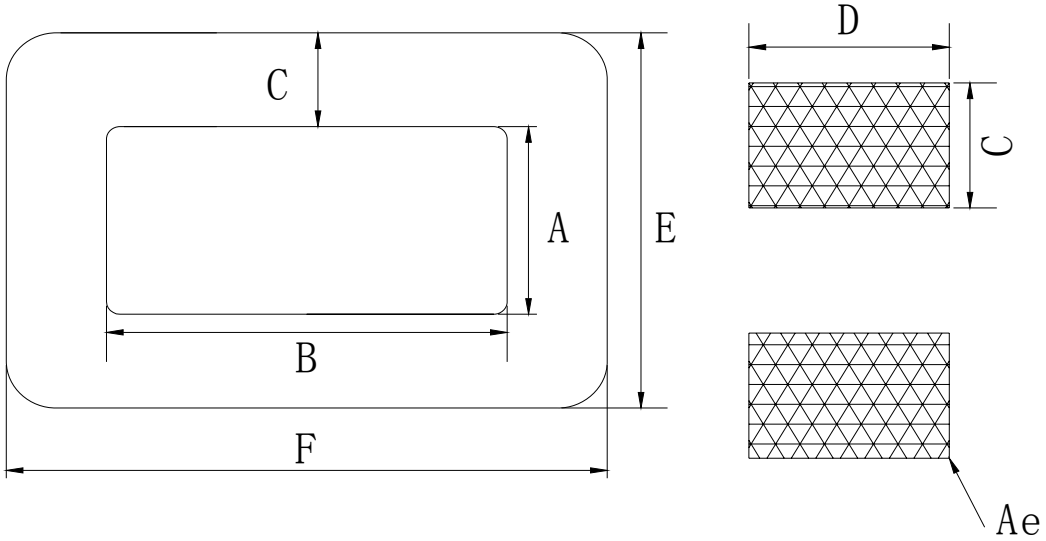
High saturation flux density; Wide constant magnetic field; Low loss at high frequency; Good performance at variable frequency; Good performance at variable temperature.

Applications:

High current filter inductor for high power supply、anti-saturation and filter inductor for DC frequency convertible of air conditioner power supply and telecom instrument, variable frequency air-conditioner, solar power, wind power, DC/AC reactor.

TYPE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Le(cm)	Ae(c㎡)	weight
tolerance	+1.5 -1.0	+1.5 -1.0	+0.5 -0.0	±0.3	ref	ref	ref	ref	ref
SC-AFC16	13	40	11	25	35	72	15.1	2.3	250
SC-AFC20	13	50	11	30	35	72	17.5	2.7	340
SC-AFC25	15	56	13	25	41	82	19.6	2.7	380
SC-AFC32	15	56	13	30	41	82	20.0	3.2	455
SC-AFC40	15	56	13	35	41	82	19.9	3.7	530
SC-AFC50	20	70	16	25	52	102	24.9	3.3	590
SC-AFC60	22	75	15	30	52	105	24.2	3.7	650
SC-AFC70	22	75	15	40	52	105	24.2	4.9	860
SC-AFC80	20	70	16	40	52	102	25.4	5.2	940
SC-AFC120	26	80	18	30	62	116	27	4.4	870
SC-AFC150	26	80	18	40	62	116	27	5.9	1150
SC-AFC180	30	90	20	30	70	130	30.4	4.9	1100
SC-AFC180	30	90	20	40	70	130	30.4	6.5	1450
SC-AFC200	30	90	20	50	70	130	30.4	8.2	1820
SC-AFC250	35	90	22	50	79	134	32.1	9.02	2100
SC-AFC300	38	95	25	50	90	145	34.5	10.2	2570
SC-AFC400	45	100	27	50	99	154	37.7	11.1	3100
SC-AFC500	50	100	30	50	110	160	39.5	12.3	3550
SC-AFC600	53	110	32	50	117	172	42.7	13.1	4100

Can provide customized dimension and specification.
Ref: For reference only.



PRODUCT: Anti-saturation inductor and DM inductor

PN: SC-AFS

Characteristics:

High saturation flux density;
Wide constant magnetic field;
Low loss at high frequency;
Good performance at variable frequency;
Good performance at variable temperature.

Applications:

Power supply、filter inductor、smoothing inductor、energy storage inductor、EMC inductor、inductor for car audio system

Dimension (mm)				*Physical specification*					*Hi pot*
Core dimension	Coating OD Max	Coating ID Min	Coating H Max	Le(cm)	V(cm3)	Wa(mm2)	H Max (A/m)	Coating	Hi-Pot
5*3*3	5.6	2.4	3.6	1.25	0.03	4.5	600	Blue	500V
6*3*3	6.6	2.4	3.6	1.42	0.052	4.5	800	Blue	500V
7*4*5	7.7	3.4	5.6	1.72	0.106	9.0	1100	Blue	500V
8*5*5	8.7	4.4	5.6	2.04	0.125	15	900	Blue	600V
9*5*5	9.7	4.4	5.6	2.19	0.180	15	1200	Blue	600V
10*6*5	10.7	5.4	5.6	2.51	0.206	22	1000	Blue	600V

(mm)				*Physical specification*				
Core dimension	Case OD	Case ID	Case H	Ae(cm2)	Le(cm)	V(cm3)	Wa(mm2)	H Max(A/m)
15*10*5	17.0	8.0	7.1	0.102	3.92	0.402	50.2	1000
19*10*5	20.9	8.4	6.9	0.184	4.55	0.840	55.3	1200
16*10*8	18.2	8.3	9.9	0.196	4.08	0.804	54	1200
18*11*8	20.5	9.2	9.6	0.229	4.55	1.045	66.4	1600
18*11*10	20.5	9.2	12.5	0.287	4.55	1.302	66.4	1600
20*12*8	22.6	10.4	10.5	0.262	5.02	1.310	84.9	1400
20*12*10	22.6	10.4	12.5	0.328	5.02	1.640	84.9	1500
26*16*10	28.8	13.7	12.7	0.41	6.59	2.7	147.3	1200
30*20*10	33.2	17.9	13.3	0.41	7.85	3.21	251.5	1200

Remark: Can make customized dimension and specification.

PRODUCT: PFC inductor

PN: SC-AFS

Characteristics:

High saturation flux density;
Wide constant magnetic field;
Low loss at high frequency;
Good performance at variable frequency;
Good performance at variable temperature.

Applications:

High current filter inductor for high power supply、anti-saturation and filter inductor for DC frequency convertible of air conditioner power supply and telecom instrument.

(mm)				*Physical specification*				
Core dimension	Case OD	Case ID	Case H	Ae(cm2)	Le(cm)	V(cm3)	Wa(mm2)	H Max(A/m)
64*40*25	67.0	36.8	29	2.46	16.3	40.1	1063	10000
73*51*35	77.3	45.6	40.0	3.15	19.4	61.0	1632	10000
78*45*30	81.6	42.0	34.2	4.05	19.3	78.3	1384	10500
80*50*25	83.0	46.3	29.3	3.07	20.4	62.7	1682	9500
90*50*30	92.9	45.5	34.6	4.9	21.9	108	1625	14000
68*40*25*	72.9	35.0	30.8	2.87	16.9	48.6	961	8500
75*48*40*	79.8	43.7	44.8	4.4	19.3	85.5	1499	8000
98*60*40*	104.7	55.2	45.0	6.2	24.9	154.5	2374	10000

Magnetic force: $H=0.4\pi*N*I/Le$ **N:** Turns **I:** current **Le:** Magnetic length

PRODUCT: Voltage transformer

PN: SC-CTV

1）Characteristics:

High saturation flux density;
High permeability;
High precise;
Good linearity;
Good performance of ratio error and phase error;
Low coercive force and high initial permeability;
Good performance at variable temperature range -55 ~ 130℃

Applicatons:

Circuit breaker、energy meter、precise current transformer、DC immunity current transformer.

（mm）	*Case（mm）*			*Physical specification*			
Core dimension	Case OD	Case ID	Case H	Ae (cm2)	Le (cm)	V (cm3)	Wa (mm2)
13*9.5*4.5	14.3	8.4	6.6	0.064	3.53	0.22	55.3
19*14*6.5	22.8	12.0	8.8	0.33	5.18	0.69	113
19*14*8	22.8	12.0	10.3	0.164	5.18	0.84	113
20*14*8	22.8	11.8	9.9	0.196	5.33	1.05	109.3
20*14*10	22.8	11.8	11.9	0.24	5.33	1.31	109.3
21*15*10	23.6	12.7	12.8	0.24	5.65	1.39	126.6

Remark: Can make customized dimension and specification.

PRODUCT: Hall sensor gapped core

PN: SC-HLG

(mm)				*Physical specification*					
Core dimension	Coating OD Max	Coating ID Min	Coating H Max	Ae(cm2)	Le(cm)	V(cm3)	Wa(mm2)	Gapping mm	H Max(A/m)
15*10*5	16.0	9.0	6.0	0.102	3.92	0.402	50.2	2.0	1000
19*10*5	20.0	9.0	6.0	0.184	4.55	0.840	55.3	2.0	1200
16*10*8	17.0	9.0	9.0	0.196	4.08	0.804	54	2.0	1200
18*11*8	19.	10.0	9.0	0.229	4.55	1.045	66.4	2.0	1600
18*11*10	19.0	10.0	9.0	0.287	4.55	1.302	66.4	2.0	1600
20*12*8	21.0	11.0	9.0	0.262	5.02	1.310	84.9	2.0	1400
20*12*10	22.6	11.0	11.0	0.328	5.02	1.640	84.9	2.0	1500
26*16*10	27.0	15.0	11.0	0.41	6.59	2.7	147.3	2.0	1200
30*20*10	31.0	19.0	11.0	0.41	7.85	3.21	251.5	2.0	1200

Remark: Can make customized dimension and specification.

PRODUCT: Magnetic amplifier

PN: SC-MGA

Characteristics:

Good square loop Br/Bm;

High max permeability;

Good induction amplitude;

Wide working temperature range.;

Low coercive force;

Low core loss.

Applications:

Best regulator for high voltage and low voltage output in switch power supply, no radiator is required.

Core dimension（mm）				*Case dimension（mm）*			*Physical specification*					
Type	OD	ID	H	OD	ID	H	Ae (cm2)	Le (cm)	V (cm3)	Wa (mm2)	Br/Bm	2℃m μwb
1005	10.4	7.4	4.5	12	5.5	7	0.055	2.79	0.154	23.7	> 94%	10.5
1205	12	10	4.5	14.7	6.0	6.7	0.0365	3.45	0.127	28.2	> 94%	7.0
1205	11.5	8.5	4.5	14.7	6.0	6.7	0.055	3.14	0.173	28..2	> 94%	10.5
1205	12	8	4.5	14.7	6.0	6.7	0.073	3.14	0.231	28.2	> 94%	14
1303	13.5	10	3	15.7	7.4	6	0.064	3.68	0.238	42.9	> 94%	12.3
1505	15	12	4.5	17	8.0	7.1	0.055	4.23	0.234	50.2	> 94%	10.5
1505	14	10	4.5	17	8.0	7.1	0.073	3.76	0.278	50.2	> 94%	14
1805	18	12	4.5	19.5	10	6.7	0.11	4.71	0.521	78.5	> 94%	25

Remark: Can make customized dimension and specification.

PRODUCT: Spike killer
PN: SC-PII

Characteristics:

High initial permeability;

Remnant induction of nonlinear not observed after saturation.

After connecting to loop, transient high impedance observed when current starts to increase.

It can use as transient impedance component;

Applications: To prevent the exciting circuit to be impacted by spike signal of transient current from the semi-conductor loop along with noise. Spike killer and driver transformer.

(mm)				***Physical specification***						
Core dimension	Coating OD Max	Coating ID Min	Coating H Max	Ae(cm2)	Le(cm)	V(cm3)	Wa(mm2)	2ø mu Wb	Br/Bm	Coating
4*2*3	4.6	1.4	3.6	0.025	0.94	0.023	1.53	5.6	> 90%	Blue
4.5*2.5*3	5.1	1.9	3.6	0.025	1.09	0.027	2.83	5.6	> 90%	Blue
5*3*4.5	5.6	2.4	5.1	0.036	1.25	0.0463	4.52	8.4	> 90%	Blue
6*3*4.5	6.6	2.4	5.1	0.055	1.41	0.0782	4.52	12.7	> 90%	Blue
7*4*4.5	7.6	3.4	5.1	0.055	1.72	0.095	9.07	12.7	> 90%	Blue

Remark: Can make customized dimension and specification.