

# Nanocrystalline

## Nanocrystalline and Amorphous

Power Transformer Cores for High Frequency. Type C (cut core) and Rectangular type (closed core) from Amorphous and Nanocrystalline Ribbon

### Performance characteristics:

Provided with high saturation magnetization, low loss and small coercive force and remarkable temperature stability, widely used for push-pull or bridge type frequency power supply, high frequency heater, special power inverter, UPS, pulse transformer, high frequency reactor and master transformer iron core in the switching power supply.

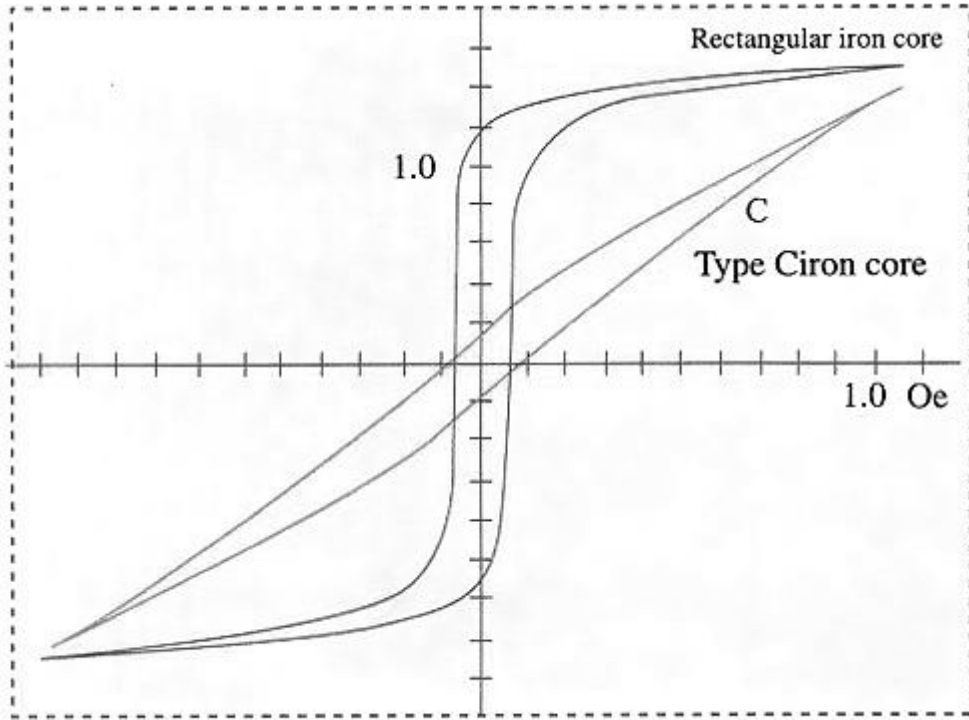
### Magnetic characteristics and physical characteristics:

Basic Parameter	Nanocrystalline Iron Core	Amorphous Iron Core
Saturation induction density $B_s$ (T)	1.25	1.6
Maximum magnetic inductivity	60*10	45*10
Coercive force $H_c$ (A/m)	1.2	4.0
Magnetostriction coefficient $\lambda_s$ (10 <sup>-6</sup> )	2.0	30
Electrical resistivity, ( $\mu\Omega$ .cm)	80	130
Curie temperature	570	370
Crystallization temperature (oC)	520	470
Hardness HV	900	880
Filling factor (%)	-70	-70

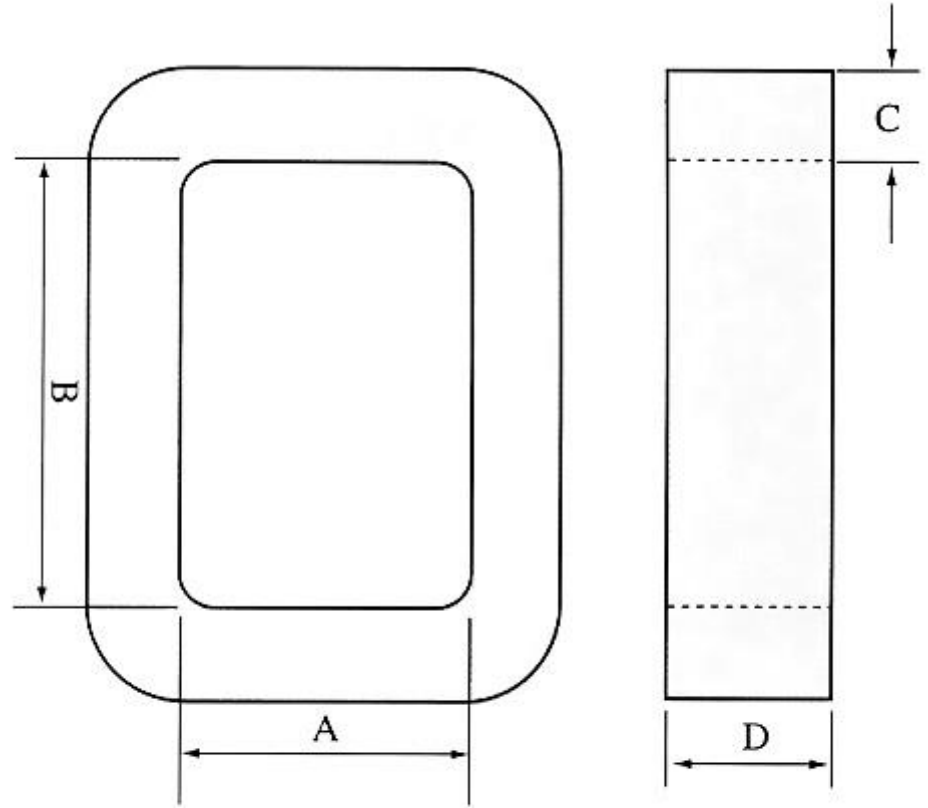
## Specification of iron core:

Model	Size(mm)				Average Magnetic Path Length(cm)	EffectiveSections AreaAe(cm )	WeightW(g)	Applicable Power(20khz)(KW)
	A	B	C	D				
TIE-C-AN90	26	60	13.5	15	21.44	1.36	210	0.8~1
TIE-C-AN91	36	76	12	20	26.16	1.61	305	1~1.5
TIE-C-AN92	20	50	15	25	18.71	2.51	340	1~2
TIE-C-AN93	35	80	16	20	28.02	2.14	440	1~2
TIE-C-AN94	17	50	20	25	19.68	3.35	480	1~2
TIE-C-AN95	20	60	20	25	22.28	3.35	540	2~3
TIE-C-AN96	20	50	20	30	20.28	4.02	600	3~4
TIE-C-AN97	25	80	20	30	27.88	4.08	825	4~5
TIE-C-AN98	30	90	25	30	31.85	5.03	1160	5~6
TIE-C-AN99	34	100	30	30	36.22	6.03	1580	7~8
TIE-C-AN100	38	100	30	35	37.02	7.04	1880	8~9
TIE-C-AN101	40	100	35	35	38.99	8.20	2300	9~11
TIE-C-AN102	50	75	40	35	37.56	9.52	2600	10~13
TIE-C-AN103	62	160	35	35	55.39	8.20	3296	13~15
TIE-C-AN104	75	145	40	40	56.56	10.72	4400	16~20
TIE-C-AN105	80	220	40	40	72.56	10.72	5640	21~26

# Applicable Power(20khz)(KW)



*Rectangular Type C Iron Core Hysteresis Cycle*



$$L=2*(A+B)+3.14*C$$

