

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.

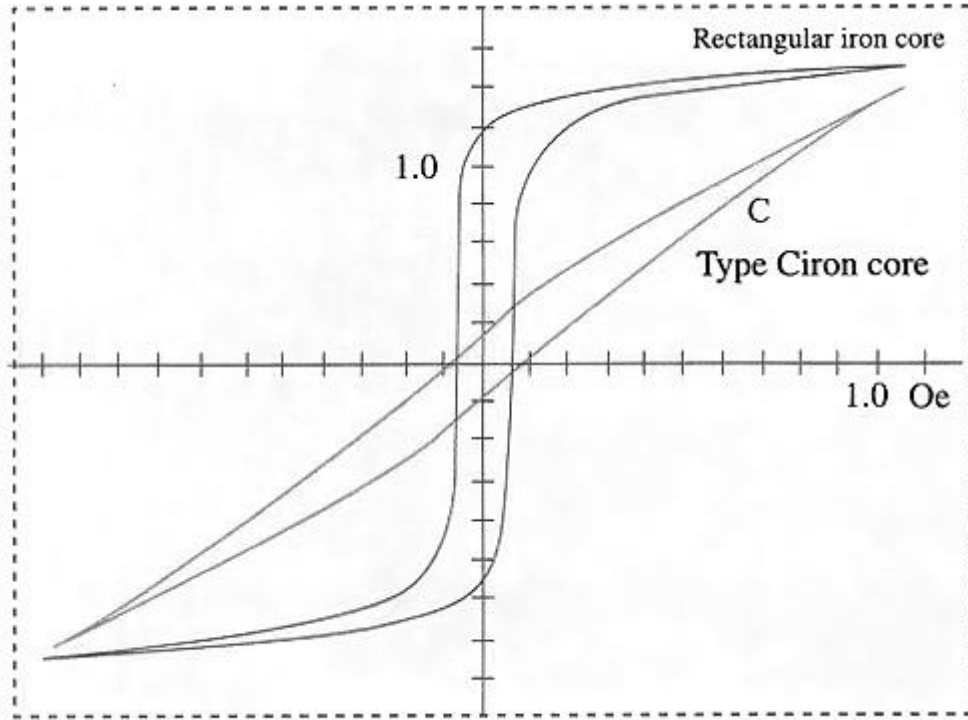
Magnetic characteristics and physical characteristics:

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 λ_s (10 ⁻⁶)	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

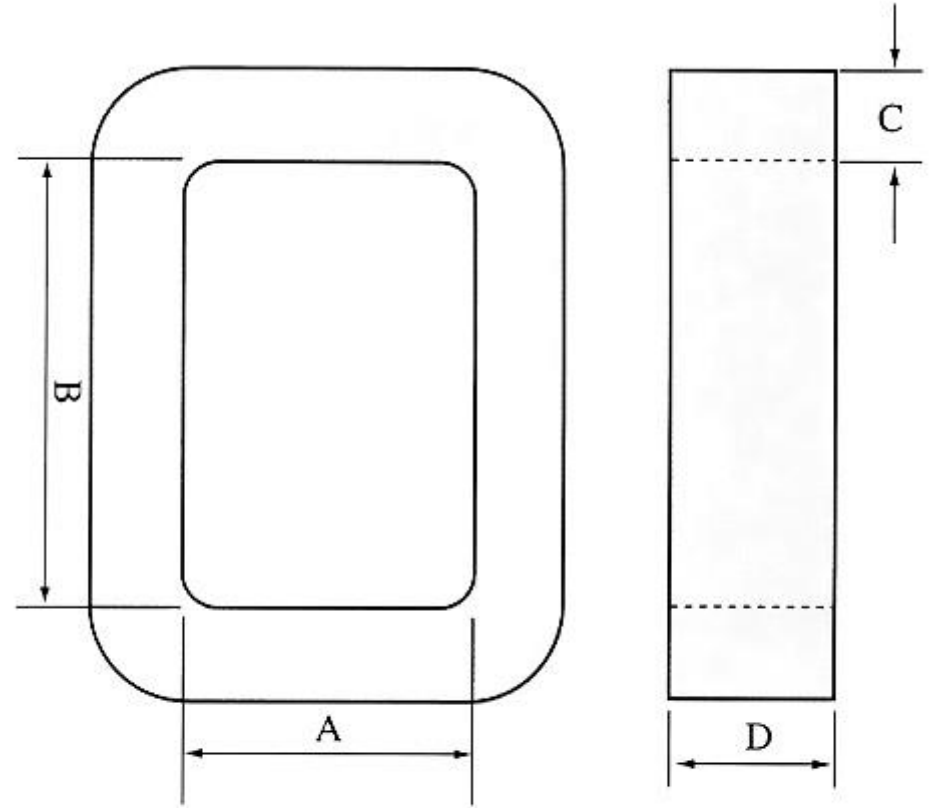
Specification of iron core:

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



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

