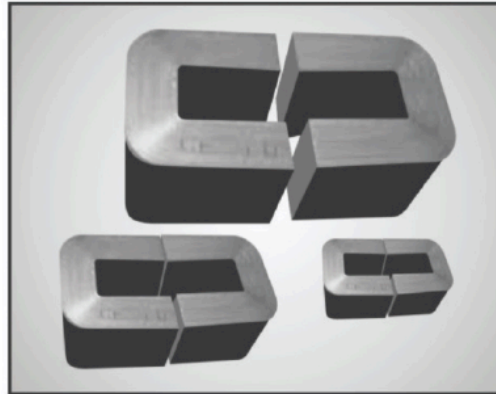


Fe-Based Nanocrystalline C-Cores

UMNCC-cores are manufactured with nanocrystalline iron based amorphous alloy. These cores provide high saturation flux density & very low losses as compared to the other conventional magnetic material. These cores are suitable for power transformer or inductor used in high frequency applications.



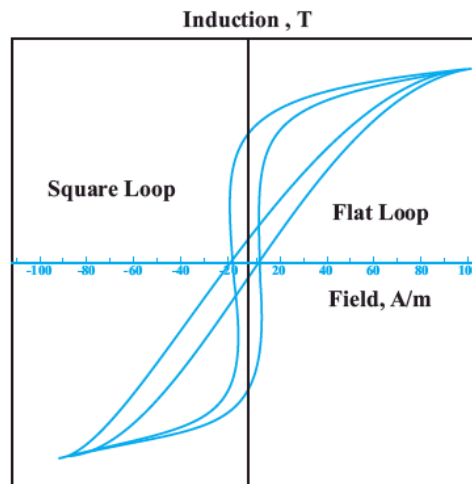
APPLICATIONS

- ▶ Power factor correction chokes (UPS & SMPS)
- ▶ UPS harmonic filters
- ▶ High frequency power transformer
- ▶ Induction heating
- ▶ Power supplies of welding equipment
- ▶ Solar and wind power generators

BENEFITS

- ▶ High saturation flux density (1.25T)
- ▶ Very Low core loss - 1/5th of iron based amorphous Metal.
- ▶ Very low audible noise
- ▶ Low temp rise due to very low losses
- ▶ Smaller sizes

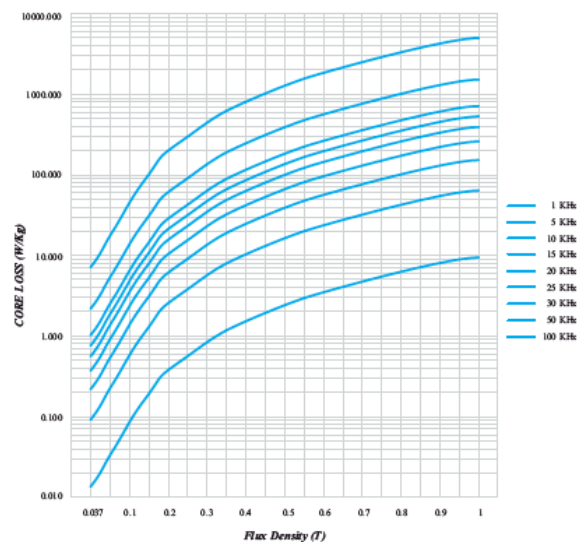
TYPICAL HYSTERESIS LOOP CURVE



PHYSICAL AND MAGNETIC PROPERTIES

Saturation Flux Density (Tesla)	1.25
Saturation Magnetostriction (ppm)	2.7
Electrical Resistivity (μ -ohm-cm)	130
Ribbon Thickness (μ m)	25-30
Density (g/cm ³)	7.3
Crystallization Temperature (°C)	510
Curie Temperature (°C)	570
Continuous Service Temperature (°C)	120-150
Initial Permeability	$>1 \times 10^4$
Maximum Permeability	$>6 \times 10^4$
Coercivity	<1.6 A/m
Core loss (100 KHz, 0.3 T)	<150 W/kg

CORE LOSS vs. FLUX DENSITY

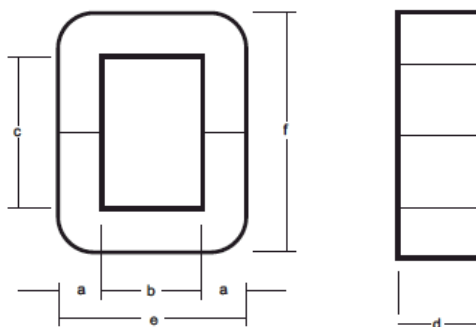


Please Turn Over

STANDARD CORE SIZE TABLE & ORDERING INFORMATION

PART No.	Dim a (mm)	Dim b (mm)	Dim C (mm)	Dim d (mm)	Dim e* (mm)	Dim f* (mm)	Lm* (cm)	Ac* (cm ²)	Core Wt ±3% (gm)	Window Area Wa (cm ²)
UMNCC - 1	6.5.00±0.5	7.10±0.5	14.00±1.0	25+0.5	20.10	27.50	6.20	1.30	61.00	1.0
UMNCC - 3	6.5.00±0.5	7.10±0.5	14.00±1.0	50+0.5	20.10	27.50	6.20	2.7	122.00	1.0
UMNCC - 6	4.5.00±0.5	22.75±0.5	29.00±1.0	24.5+0.5	31.750	38.00	11.40	.90	76.40	6.60
UMNCC - 6.3	10.00±0.5	11.50±0.5	34.00±1.0	20+0.5	31.50	54.00	12.22	1.68	152.00	3.91
UMNCC - 8	11.00±0.5	13.50±0.5	31.00±1.0	20+0.5	35.50	53.00	12.34	1.85	169.00	4.19
UMNCC -10	11.00±0.5	13.50±0.5	41.00±1.0	20+0.5	35.50	63.00	14.34	1.85	196.00	5.54
UMNCC -16A	11.00±0.5	13.50±0.5	41.00±1.0	25+0.5	35.50	63.00	14.32	2.31	245.00	5.54
UMNCC -16B	11.00±0.5	13.50±0.5	51.00±1.0	25+0.5	35.50	73.00	16.32	2.31	279.00	6.89
UMNCC -20	11.00±0.5	13.50±0.5	51.00±1.0	30+0.5	35.50	73.00	16.32	2.77	332.00	6.89
UMNC C-25	13.00±0.8	15.50±0.5	57.00±1.0	25+0.5	41.50	83.00	18.55	2.73	374.00	8.84
UMNC C-25A	12.50±0.8	25.00±0.5	65.00±1.0	15+0.5	50.00	90.00	21.67	1.54	246.00	16.25
UMNCC -32	13.00±0.8	15.50±0.5	57.00±1.0	30+0.5	41.50	83.00	18.55	3.20	439.00	8.84
UMNCC -V38	13.00±0.8	15.50±0.5	57.00±1.0	40+0.5	41.50	83.00	18.50	4.26	595.00	8.84
UMNCC -39	15.00±0.5	25.00±0.5	50.00±1.0	25+0.5	55.00	80.00	19.45	3.08	442.00	12.50
UMNCC -40	13.00±0.8	15.50±0.5	57.00±1.0	35+0.5	41.50	83.00	18.50	3.73	510.00	8.84
UMNCC -50	16.00±1.0	20.50±0.5	71.25±1.5	25+0.5	52.50	103.50	23.29	3.36	579.00	14.61
UMNCC -63	16.00±1.0	20.50 ±0.5	71.25 ±1.5	30+0.5	52.50	103.50	23.29	4.03	694.00	14.61
UMNCC -80	16.00±1.0	20.50 ±0.5	71.25 ±1.5	40+1.0	52.50	103.50	23.29	6.38	926.00	14.61
UMNCC -100	16.00±1.0	20.50 ±0.5	71.25 ±1.5	45+1.0	52.50	103.50	23.29	6.05	1042.00	14.61
UMNCC -125	19.00±1.0	25.50±0.5	84.25±1.25	35+1.0	63.50	122.50	27.83	5.59	1150.00	21.48
UMNCC -160	19.00±1.0	25.50±0.5	84.25±1.25	40+1.0	63.50	122.50	27.83	6.38	1314.00	21.48
UMNCC -470	33.00±1.0	40.50±0.5	106.3±1.25	40+1.0	106.50	172.30	39.64	10.82	3173.00	43.05
UMNCC -685	28.00±1.0	73.00±0.5	136.0±1.25	30+1.0	129.00	192.00	50.51	6.89	2573.00	99.28

*REFERENCE VALUE ONLY
CUSTOM SIZES ALSO AVAILABLE



PRODUCT IDENTIFICATION

