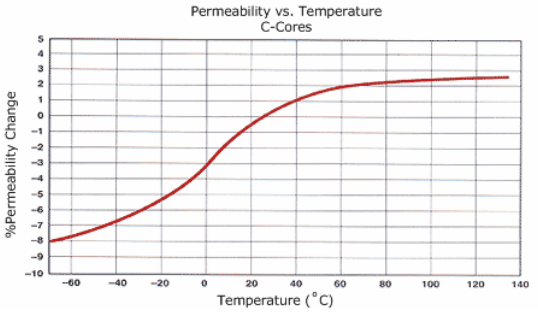
BFi OPTiLAS

Europe's Specialist Distributor

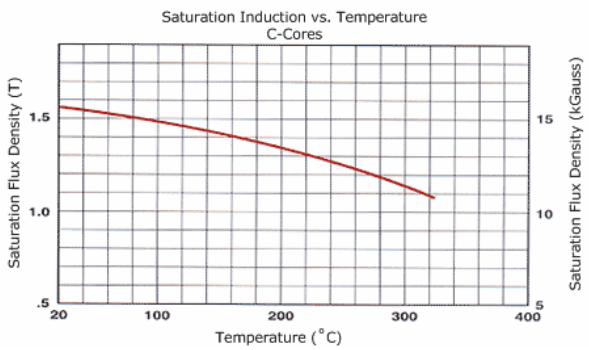
AMORPHOUS C-CORES

C-Cores are manufactured with iron-based amorphous Alloy.
Their unique combination of low loss and high saturation flux density take advanced power conditioning applications to higher performance levels than previously possible with conventional ferromagnetic materials.



PHYSICAL PROPERTIES
IRON BASED AMORPHOUS ALLOY

Ribbon Thickness (µm)	25
Density (g/cm^3)	7.19
Thermal Expansion (ppm/^{o}c)	7.6
Crystallization Temperature (^{o}c)	550
Curie Temperature (^{o}c)	415
Continuous Service Temperature (^{o}c)	155
Tensile Strength (MN/m^2)	1k-1.7k
Elastic Modulus (GN/m^2)	100-110
Vicker's Hardness (50g load)	860

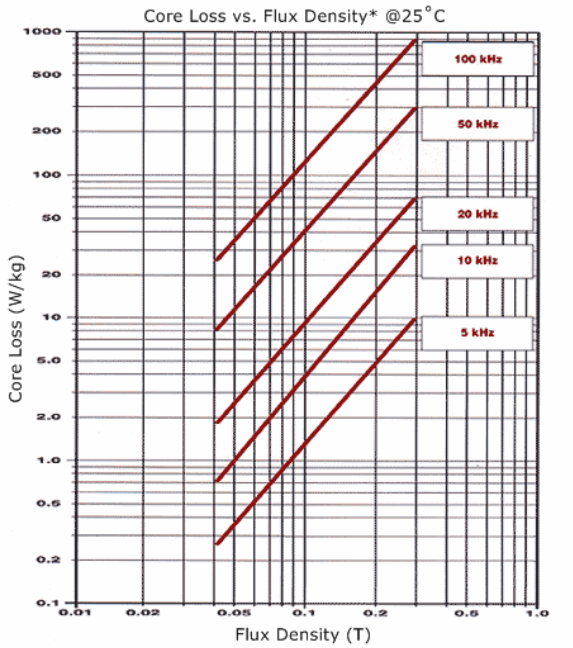


MAGNETIC PROPERTIES C-CORES

Saturation Flux Density (Tesla)	1.56
Permeability (depending on gap size)	VARIABLE
Saturation Magnetostriction (ppm)	27
Electrical Resistivity (µΩ-cm)	137

APPLICATIONS

- UPS and SMPS Power Factor Correction Chokes
- UPS Harmonic Filter Inductors
- High-Power Outdoor Industrial Ballasts
- Welding Power Supplies
- High-Speed Rail Power Systems



P_{core} (W/kg) = 6,5 • f(kHz)^{1,51} • B(T)^{1,74}
1W/kg = 7,19 mW/Cm^3

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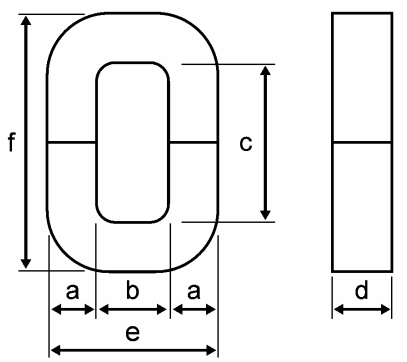

Core #	a (mm)	b (mm)	c (mm)	d (mm)	e* (mm)	f* (mm)	Lm* (cm)	Ac* (cm2)	Core Wt.+/- 2% (gm)	Window Area (cm2)
UMCCC-42/100S	5,1±0,5	6,5±0,5	18,60±0,5	8,0+0,5	16,7±1,5	29,3±1,0	6,62	0,34	16,5	1,21
UMCCC-1	6,5±0,5	7,1±0,5	14,50±0,5	25+0,5	20,1+1,5	28,2±1,0	6,36	1,37	63,9	1,03
UMCCC-2	6,4±0,5	7,6±0,5	31,80±1,0	12,7+0,5	20,4+1,5	45,2±1,0	9,89	0,68	49,3	2,42
UMCCC-4	9,0±0,5	10,5±0,5	33,00±1,0	15,0+0,5	28,5±1,5	50,4+2,0	11,53	1,13	95,5	3,47
UMCCC-5	9,9±0,5	9,7±0,5	33,00±1,0	20,0+0,5	29,5±1,5	52,3+2,0	11,65	1,66	142,0	3,20
UMCCC-6.3	10,0±0,5	11,5±0,5	34,00±1,0	20,0+0,5	31,5±1,5	53,5+2,0	12,24	1,68	151,0	3,91
UMCCC-7	9,0±0,5	10,2±0,5	28,60±1,0	32,00+1,0	28,2±1,5	46,0+2,0	10,59	2,42	188,0	2,92
UMCCC-8	11,0±0,8	13,5±O,5	31,00±1,0	20,0+0,5	35,5±2,1	52,6+2,0	12,35	1,85	168,0	4,19
UMCCC-10	11,0±0,8	13,5±O,5	41,00±1,0	20,0+0,5	35,5±2,1	62,6+2,0	14,35	1,85	195,0	5,54
UMCCC-16A	11,0±0,8	13,5±O,5	41,00±1,0	25,0+0,5	35,5±2,1	62,6+2,0	14,35	2,31	243,0	5,54
UMCCC-16B	11,0±0,8	13,5±0,5	51,00±1,0	25,0+0,5	35,5±2,1	72,6+2,0	16,35	2,31	277,0	6,89
UMCCC-17	9,7±0,5	15,9±0,5	49,20±1,0	25,0+0,5	35,3±1,5	68,0+2,0	16,07	2,04	240,0	7,82
UMCCC-20	11,0±0,8	13,5±O,5	51,00±1,0	30,0+0,5	35,5±2,1	72,6+2,0	16,35	2,77	332,0	6,89
UMCCC-25	13,0±0,8	15,5±O,5	57,00±1,0	25,0+0,5	41,5±2,1	82,8+2,0	18,58	2,73	372,0	8,84
UMCCC-32	13,0±0,8	15,5±0,5	57,00±1,0	30,0+0,5	41,5±2,1	82,8+2,0	18,58	3,28	447,0	8,84
UMCCC-40	13,0±0,8	15,5±O,5	57,00±1,0	35,0+0,5	41,5±2,1	82,8+2,0	18,58	3,82	521,0	8,84
UMCCC-48	15,0±0,8	20,5±0,5	71,30±1,25	25,0+0,5	50,5±2,1	101,3+3,0	23,07	3,15	533,0	14,62
UMCCC-50	16,0±1,0	20,5±0,5	71,25±1,25	25,0+0,5	52,5±2,1	103,4+3,0	23,38	3,36	576,0	14,62
UMCCC-52	10,0±0,5	35,5±0,5	85,75±1,25	20,0+0,5	55,5±1,5	105,3+3,0	27,40	1,68	338,0	30,46
UMCCC-63	16,0±1,0	20,5±0,5	71,25±1,25	30,0+0,5	52,5±2,1	103,4+3,0	23,38	4,03	691,0	14,62
UMCCC-72	18,9±1,0	20,0±0,5	64,00±1,25	35,0+0,5	57,8±2,5	102,2+3,0	22,73	5,56	927,0	12,80
UMCCC-80	16,0±1,0	20,5±0,5	71,25±1,25	40,0+1,0	52,5±2,1	103,4+3,0	23,38	5,38	923,0	14,62
UMCCC-100	16,0±1,0	20,5±0,5	71,25±1,25	45,0+1,0	52,5±2,1	103,4+3,0	23,38	6,05	1038,0	14,62
UMCCC-125	19,0±1,0	25,5±0,5	84,25±1,25	35,0+1,0	63,5±2,5	122,7+3,0	27,93	5,59	1145,0	21,50
UMCCC-160	19,0±1,0	25,5±0,5	84,25±1,25	40,0+1,0	63,5±2,5	122,7+3,0	27,93	6,38	1307,0	21,50
UMCCC-168	20,4±0,5	30,2±0,5	155,20±1,0	20,0+0,5	71,0±2,5	196,5+5,0	43,49	3,43	1094,0	46,87
UMCCC-200	19,0±1,0	25,5±0,5	84,25±1,25	50,0+1,0	63,5±2,5	122,7+3,0	27,93	7,98	1634,0	21,50
UMCCC-201	17,5±1,0	25,0±0,5	66,00±1,25	85,0+1,0	60,0±2,5	101,3+3,0	23,70	12,50	2172,0	16,50
UMCCC-221	25,0±1,0	39,0±0,5	103,00±1,25	25,0+0,5	89,0±2,5	154,0+4,0	36,25	5,25	1396,0	40,17
UMCCC-250	19,0±1,0	25,5±0,5	91,25±1,25	60,0+1,0	63,5±2,5	129,7+4,0	29,33	9,58	2060,0	23,28
UMCCC-268	20,3±1,0	35,0±0,5	85,00±1,25	50,0+1,0	75,6±2,5	126,1+4,0	30,37	8,53	1900,0	29,75
UMCCC-320	22,0±1,0	35,5±0,5	86,25±1,25	50,0+1,0	79,5±2,5	131,0+4,0	31,27	9,24	2119,0	30,64
UMCCC-367	25,4±1,0	66,0±0,5	97,80±1,25	25,0+0,5	116,8±2,5	149,6+4,0	40,74	5,33	1592,0	64,55
UMCCC-370	24,8±1,0	85,0±0,5	85,00±1,25	25,0+0,5	134,6±2,5	135,6+4,0	41,79	5,21	1597,0	72,25
UMCCC-384	23,0±1,0	40,0±0,5	85,00±1,25	55,0+1,0	86,0±2,5	131,8+4,0	32,22	10,63	2512,0	34,00
UMCCC-400	22,0±1,0	35,5±0,5	86,25±1,25	65,0+1,0	79,5±2,5	131,0+4,0	31,27	12,01	2754,0	30,64
UMCCC-457	43,4±1,5	44,0±0,5	136,00±1,25	20,0+0,5	130,8±3,5	224,1+5,0	49,63	7,29	2653,0	59,84
UMCCC-498	28,5±1,0	50,5±0,5	108,50±1,25	40,0+1,0	107,5±2,5	165,4+4,0	40,75	9,58	2863,0	54,79
UMCCC-500	25,0±1,0	40,5±0,5	86,25±1,25	55,0+1,0	90,5±2,5	135,8+4,0	33,21	11,55	2813,0	34,95
UMCCC-504	23,7±1,0	42,0±0,5	114,50±1,25	50,0+1,0	89,4±2,5	161,3+4,0	38,74	9,95	2827,0	48,09
UMCCC-630	25,0±1,0	40,5±0,5	86,25±1,25	70,0+1,0	90,5±2,5	135,8+4,0	33,21	14,70	3580,0	34,95
UMCCC-686	43,4±1,5	44,0±0,5	136,00±1,25	30,0+0,5	130,8±3,5	224,1+5,0	49,63	10,94	3982,0	59,84
UMCCC-800A	25,0±1,0	40,5±0,5	86,25±1,25	85,0±1,5	90,5±2,5	135,8+4,0	33,21	17,85	4347,0	34,95
UMCCC-800B	30,0±1,0	40,5±0,5	96,25±1,25	85,0±1,5	100,5±2,5	156,3+4,0	36,78	21,42	5778,0	39,00
UMCCC-989	19,5±1,0	40,5±0,5	106,30±1,25	142,00±1,5	79,5±2,5	144,3+4,0	35,48	23,26	6053,0	43,05
UMCCC-1000	33,0±1,0	40,5±0,5	106,25±1,25	85,0±1,5	106,5±2,5	172,6+4,0	39,72	23,56	6863,0	43,05
UMCCC-1103	25,4±1,0	50,8±0,5	114,30±1,25	85,0±1,5	101,6±2,5	164,6+4,0	41,00	18,14	5454,0	58,06
UMCCC-1382	44,0±1,5	40,0±0,5	105,00±1,25	85,0±1,5	128,0±3,5	194,4+5,0	42,82	31,42	9866,0	42,00
UMCCC-1775	33,0±1,0	40,5±0,5	106,30±1,25	142,00±1,5	106,5±2,5	172,6+4,0	39,72	39,36	11466,0	43,05
UMCCC-2553	54,0±1,5	57,0±0,5	174,00±1,25	55,00+1,0	165,0±3,5	284,4+5,0	63,16	24,95	11556,0	99,18

*** Reference Value** **Bobbins and Accessories are available on request.**